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SCS #1518

LOGICK:

Or, The RIGHT USE of

REASON

IN THE

Enquiry after TRUTH.

WITH

A Variety of RULES to guard againſt *Error*, in the Affairs of RELIGION and HUMAN LIFE, as well as in the SCIENCES.

By *ISAAC WATTS*, D. D.

The FOURTH EDITION, Corrected.

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SCS #158

TO

Sir *John Hartopp*, Bar^t.

SIR,

IT is fit the Publick ſhould receive thro' your Hands what was written originally for the Aſſiſtance of your younger Studies, and was then preſented to you.

It was by the repeated Importunities of our Learned Friend Mr. *John Eames*, that I was perſuaded to reviſe theſe *Rudiments of Logick*; and when I had once ſuffered myſelf to begin the Work, I was drawn ſtill onward far beyond my firſt Deſign, even to the Neglect, or too long Delay of other preſſing and important Demands that were upon me.

It has been my Endeavour to form every Part of this Treatiſe both for the

Instruction of Students to open their Way into the Sciences, and for the more extensive and general Service of Mankind, that the *Gentleman* and the *Christian* might find their Account in the Perusal as well as the *Scholar*. I have therefore collected and propos'd the chief Principles and Rules of right Judgment in Matters of common and sacred Importance, and pointed out our most frequent Mistakes and Prejudices in the Concerns of Life and Religion, that we might better guard against the Springs of Error, Guilt and Sorrow, which surround us in every Stage of Mortality.

You know, *Sir*, the great Design of this noble Science is to rescue our reasoning Powers from their unhappy Slavery and Darkness; and thus with all due Submission and Deference it offers a humble Assistance to divine Revelation. Its chief Business is to relieve the natural Weaknesses of the Mind by some better Efforts of Nature; it is to diffuse

diffuſe a Light over the Underſtanding in our Enquiries after Truth, and not to furniſh the Tongue with Debate and Controverſy. *True Logick* is not that noiſy Thing that deals all in Diſpute and Wrangling, to which former Ages had debaſed and confined it; yet its Diſciples muſt acknowledge alſo, that they are taught to vindicate and defend the Truth, as well as to ſearch it out. *True Logick* doth not require a long Detail of hard Words to amuſe Mankind, and to puff up the Mind with empty Sounds, and a Pride of falſe Learning; yet ſome Diſtinctions and Terms of Art are neceſſary to range every Idea in its proper Claſs, and to keep our Thoughts from Confuſion. The World is now grown ſo wiſe as not to ſuffer this valuable Art to be engroſt by the *Schools*. In ſo polite and knowing an Age, every *Man of Reaſon* will covet ſome Acquaintance with *Logick*, ſince it tenders its daily Service to *Wiſdom* and *Virtue*, and to

the Affairs of *common Life* as well as to the *Sciences.*

I will not preſume, *Sir*, that this little Book is improved ſince its firſt Compoſure, in Proportion to the Improvements of your manly Age. But when you ſhall pleaſe to review it in your retired Hours, perhaps you may refreſh your own Memory in ſome of the early Parts of *Learning:* And if you find all the additional Remarks and Rules made ſo familiar to you already by your own Obſervation, that there is nothing new among them, it will be no unpleaſing Reflection that you have ſo far anticipated the preſent Zeal and Labour of,

SIR,

Your moſt faithful and

obedient Servant,

London Aug. 24. 1724.

I. WATTS.

LOGICK:

OR,

The Right Use of REASON.

The INTRODUCTION *and general* SCHEME.

LOGICK is *the Art of using Reason* * *well in our Enquiries after Truth, and the Communication of it to others.*

Reason * is the Glory of human Nature, and one of the chief Eminencies whereby we are raised above our Fellow-Creatures the Brutes in this lower World.

Reason, as to the *Power and Principle* of it, is the common Gift of God to all Men; tho' all are not favour'd with it by Nature in an equal Degree: But the *acquired Improvements* of it in different Men, make a much greater Distinction between them than Nature had made. I could even venture to say, that the *Improvement of Reason* hath raised the Learned and the Prudent in the *European* World, almost as much above the *Hottentots*, and other Savages of *Africa*, as those Savages are by Nature superior to the Birds, the Beasts, and the Fishes.

Now the *Design of Logick* is to teach us the right Use of our *Reason*, or *Intellectual Powers*, and the Improvement of them in our selves and others; this is not only necessary in order to at-

* The Word *Reason* in this Place is not confin'd to the mere Faculty of reasoning or inferring one thing from another, but includes all the intellectual Powers of Man.

tain any competent Knowledge in the *Sciences*, or the Affairs of Learning, but to govern both the greater and the meaner *Actions of Life*. It is the Cultivation of our *Reason* by which we are better enabled to distinguish *Good* from *Evil*, as well as *Truth* from *Falshood*: And both these are Matters of the highest Importance, whether we regard this Life, or the Life to come.

The *Pursuit* and *Acquisition of Truth* is of infinite Concernment to Mankind. Hereby we become acquainted with the Nature of Things both in Heaven and Earth, and their various Relations to each other. It is by this means we discover our Duty to God and our Fellow-Creatures: By this we arrive at the Knowledge of *natural Religion*, and learn to confirm our Faith in *divine Revelation*, as well as to understand what is revealed. Our Wisdom, Prudence and Piety, our present Conduct and our future Hope, are all influenced by the Use of our *rational Powers* in the Search after *Truth*.

There are several Things that make it very necessary that our Reason should have some Assistance in the Exercise or *Use* of it.

The first is, the *Depth and Difficulty of many Truths*, and the *Weakness of our Reason to see far into Things at once, and penetrate to the Bottom of them*. It was a Saying among the Ancients, *Veritas in Puteo*, Truth lies in a Well; and to carry on this Metaphor we may very justly say, that *Logick* does, as it were, supply us with Steps whereby we may go down to reach the Water; or it frames the Links of a Chain whereby we may draw the Water up from the Bottom. Thus, by the Means of many Reasonings well connected together, Philosophers in our Age have drawn a thousand Truths out of the Depths of Darkness,

ness, which our Fathers were utterly unacquainted with.

Another Thing that makes it necessary for our Reason to have some Assistance given it, is the *Disguise and false Colours in which many things appear to us in this present imperfect State:* There are a thousand things which are not in reality what they appear to be, and that both in the *natural* and the *moral* World: So the *Sun* appears to be flat as a Plate of Silver, and to be less than twelve Inches in Diameter; the *Moon* appears to be as big as the *Sun*, and the Rainbow appears to be a large substantial Arch in the Sky; all which are in reality gross Falshoods. So *Knavery* puts on the Face of *Justice*, *Hypocrisy* and *Superstition* wear the Vizard of *Piety*, *Deceit* and *Evil* are often clothed in the Shapes and Appearances of *Truth* and *Goodness*. Now *Logick* helps us to strip off the outward Disguise of Things, and to behold them and judge of them in their own Nature.

There is yet a further Proof that our intellectual or rational *Powers* need some Assistance, and that is because they are so frail and fallible in the present State; we are imposed upon *at home* as well as *abroad*; we are deceiv'd by our *Senses*, by our *Imaginations*, by our *Passions* and *Appetites*; by the *Authority* of Men, by *Education* and *Custom*, &c. and we are led into frequent Errors, by judging according to these false and flattering Principles, rather than according to the Nature of Things. Something of this Frailty is owing to our very *Constitution*, Man being compounded of Flesh and Spirit: Something of it arises from our *infant State*, and our growing up by slow Degrees to Manhood, so that we form a thousand Judgments before our *Reason* is mature. But there is still more of it owing to our *original Defection* from God, and the

the fooliſh and evil Diſpoſitions that are found in fallen Man: So that one great Part of the *Deſign of Logick* is to guard us againſt the deluſive Influences of our meaner Powers, to cure the Miſtakes of immature Judgment, and to raiſe us in ſome meaſure from the Ruins of our Fall.

It is evident enough from all theſe Things, that our *Reaſon* needs the Aſſiſtance of *Art* in our Enquiries after *Truth* or *Duty*; and without ſome Skill and Diligence in forming our Judgments aright, we ſhall be led into frequent Miſtakes, both in Matters of *Science*, and in Matters of *Practice*, and ſome of theſe Miſtakes may prove fatal too.

The *Art of Logick*, even as it aſſiſts us to gain the Knowledge of the Sciences, leads us on toward Virtue and Happineſs; for all our *ſpeculative Acquaintance with Things* ſhould be made ſubſervient to our better *Conduct in the civil and the religious Life*. This is infinitely more valuable than all Speculations, and a wiſe Man will uſe them chiefly for this better Purpoſe.

All the good Judgment and Prudence that any Man exerts in his common Concerns of Life, without the Advantages of Learning, is called *natural Logick:* And it is but a higher Advancement, and a farther Aſſiſtance of our rational Powers that is deſign'd by and expected from this *artificial Logick*.

In order to attain this, we muſt enquire what are the *principal Operations of the Mind*, which are put forth in the Exerciſe of our Reaſon: And we ſhall find them to be theſe four, (*viz.*) *Perception*, *Judgment*, *Argumentation*, and *Diſpoſition*.

Now the *Art of Logick* is compos'd of thoſe Obſervations and Rules, which Men have made about theſe four Operations of the Mind, *Perception*, *Judgment*, *Reaſoning*, and *Diſpoſition*, in order to aſſiſt and improve them. I. *Per-*

I. *Perception*, *Conception*, or *Apprehension*, is the mere simple Contemplation of Things offered to our Minds, without affirming or denying any Thing concerning them. So we conceive or think of *a Horse*, *a Tree*, *High*, *Swift*, *Slow*, *Animal*, *Time*, *Motion*, *Matter*, *Mind*, *Life*, *Death*, *&c.* The *Form* under which these Things appear to the Mind, or the Result of our Conception or Apprehension, is call'd an *Idea*.

II. *Judgment* is that Operation of the Mind, whereby we join two or more Ideas together by one Affirmation or Negation, *that is*, we either affirm or deny *this* to be *that*. So *This Tree is high*; *That Horse is not swift*; *The Mind of Man is a thinking Being*; *Mere Matter has no Thought belonging to it*; *God is just*; *Good Men are often miserable in this World*; *A righteous Governor will make a Difference betwixt the Evil and the Good*; which Sentences are the Effect of Judgment, and are called *Propositions*.

III. *Argumentation* or *Reasoning* is that Operation of the Mind, whereby we infer one Thing, *i. e.* one Proposition, from two or more Propositions premised. Or it is the drawing a Conclusion, which before was either unknown, or dark, or doubtful, from some Propositions which are more known and evident. So when we have judged that *Matter cannot think*, *and that the Mind of Man doth think*, we then infer and conclude, that *therefore the Mind of Man is not Matter*.

So we judge that *A just Governor will make a Difference betwixt the Evil and the Good*; we judge also that God *is a just Governor*; and from thence we conclude, that *God will make a Difference betwixt the Evil and the Good*.

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This Argumentation may be carried on further, thus, *God will one Time or another make a Difference between the Good and the Evil:* But *there is little or no Difference made in this World*; *Therefore there must be another World wherein this Difference shall be made.*

These *Inferences* or *Conclusions* are the Effects of Reasoning, and the three Propositions taken altogether are called a *Syllogism*, or *Argument.*

IV. *Disposition* is that Operation of the Mind, whereby we put the Ideas, Propositions and Arguments, which we have formed concerning one Subject, into such an Order as is fittest to gain the cleerest Knowledge of it, to retain it longest, and to explain it to others in the best manner: Or, in short, it is the Ranging of our Thoughts in such Order, as is best for our own and others Conception and Memory. The Effect of this Operation is called *Method.* This very *Description of the four Operations of the Mind and their Effects in this Order*, is an Instance or Example of Method.

Now as the Art of Logick assists our *Conception*, so it gives us a *large* and *comprehensive* View of the Subjects we enquire into, as well as a *clear* and *distinct* Knowledge of them. As it regulates our *Judgment* and our *Reasoning*, so it secures us from Mistakes, and gives us a *true* and *certain* Knowledge of Things; and as it furnishes us with *Method*, so it makes our Knowledge of Things both *easy* and *regular*, and guards our Thoughts from Confusion.

Logick is divided into four Parts, according to these four Operations of the Mind, which it directs, and therefore we shall treat of it in this Order.

THE

THE FIRST PART OF LOGICK.

Of Perceptions and Ideas.

THE first Part of *Logick* contains Observations and Precepts about the first Operation of the Mind, *Perception* or *Conception:* And since all our Knowledge, how wide and large soever it grow, is founded upon our *Conceptions* and *Ideas*, here we shall consider,

1. *The general Nature of them.*
2. *The Objects of our Conception*, or the *Archetypes* or *Patterns* of these *Ideas.*
3. *The several Divisions of them.*
4. *The Words and Terms whereby our Ideas are expreſt.*
5. *General Directions about our Ideas.*
6. *Special Rules to direct our Conceptions.*

CHAP.

CHAP. I.

Of the Nature of Ideas.

FIRST, the *Nature of Conception* or *Perception* † ſhall juſt be mention'd, tho' this may ſeem to belong to another Science rather than *Logick*.

Perception is that *Act of the Mind* (or as ſome Philoſophers call it, rather a *Paſſion* or *Impreſſion*) *whereby the Mind becomes conſcious of any Thing*, as when I feel *Hunger*, *Thirſt*, or *Cold*, or *Heat*; when I ſee a *Horſe*, a *Tree*, or a *Man*; when I hear a *human Voice*, or *Thunder*, I am conſcious of theſe Things, and this is called *Perception*. If I *ſtudy*, *meditate*, *wiſh* or *fear*, I am conſcious of theſe inward Acts alſo, and my Mind perceives its own *Thoughts*, *Wiſhes*, *Fears*, &c.

An *Idea* is generally defin'd a *Repreſentation of a Thing in the Mind*; it is a Repreſentation of ſomething that we have *ſeen*, *felt*, *heard*, &c. or *been conſcious of*. That Notion or Form of a Horſe, a Tree, or a Man, which is in the Mind, is called the *Idea of a Horſe*, a *Tree*, or a *Man*. That Notion of Hunger, Cold, Sound, Colour, Thought, or Wiſh, or Fear, which is in the Mind, is called the *Idea of Hunger*, *Cold*, *Sound*, *Wiſh*, &c.

It is not the outward Object, or *Thing which is perceived*, (*viz.*) the Horſe, the Man, *&c.* nor

† *Note*, The Words *Conception* and *Perception* are often uſed promiſcuouſly, as I have done here, becauſe I would not embarraſs a Learner with too many Diſtinctions; but if I were to diſtinguiſh them, I would ſay *Perception* is the Conſciouſneſs of an Object when preſent: *Conception* is the forming an Idea of the Object, whether preſent or abſent.

is it the very *Perception* or *Sense*, and *Feeling*, (*viz.*) of Hunger, or Cold, *&c.* which is called the *Idea*; but it is the *Thing as it exists in the Mind by Way of Conception or Representation*, that is properly called the *Idea*, whether the *Object* be present or absent.

As a Horse, a Man, a Tree, are the outward *Objects* of our Perception, and the outward *Archetypes* or *Patterns of our Ideas*; so our own Sensations of Hunger, Cold, *&c.* are also inward *Archetypes* or *Patterns of our Ideas:* But the *Notions* or *Pictures of these* Things, as they are considered, or conceived in the Mind, are precisely the *Ideas* that we have to do with in *Logick*. To *see a Horse*, or *to feel Cold*, is one Thing; to *think of*, and converse about a *Man*, a *Horse*, *Hunger*, or *Cold*, is another.

Among all these *Ideas*, such as represent *Bodies*, are generally call'd *Images*, especially if the Idea of the Shape be included. Those inward Representations which we have of *Spirit*, *Thought*, *Love*, *Hatred*, *Cause*, *Effect*, &c. are more *pure* and *mental Ideas*, belonging more especially to the Mind, and carry nothing of Shape or Sense in them. But I shall have occasion to speak more particularly of the *Original* and the *Distinction of Ideas* in the third Chapter. I proceed therefore now to consider the *Objects* of our *Ideas*.

CHAP.

CHAP. II.

Of the Objects of Perception.

SECT. I.

Of Being in general.

THE *Object of Perception* is that which is repreſented in the Idea, that which is the Archetype or Pattern, according to which the Idea is form'd; and thus *Judgments*, *Propoſitions*, *Reaſonings*, and *long Diſcourſes*, may all become the Objects of Perception; but in this Place we ſpeak chiefly of the *firſt and more ſimple Objects* of it, before they are join'd and form'd into Propoſitions or Diſcourſes.

Every *Object* of our Ideas is call'd a *Theme*, whether it be a *Being* or *Not Being*; for *Not Being* may be propoſed to our Thoughts, as well as that which has a real Being. But let us firſt treat of *Beings*, and that in the largeſt Extent of the Word.

A *Being* is conſider'd as *poſſible*, or as *actual*.

When it is conſider'd as *poſſible*, it is ſaid to have an *Eſſence* or *Nature*; ſuch were *all Things before their Creation:* When it is conſider'd as *actual*, then it is ſaid to have *Exiſtence* alſo; ſuch are *all Things which are created*, and *God* himſelf the Creator.

Eſſence therefore is but the very *Nature* of any *Being*, whether it be actually *exiſting* or no. A *Roſe* in *Winter* has an Eſſence, in *Summer* it has Exiſtence alſo.

Note, there is but one Being which includes *Existence* in the very *Essence* of it, and that is *God*, who therefore actually exists by natural and eternal Necessity: But the *actual Existence* of every Creature is very distinct from its *Essence*, for it may *be*, or may *not be*, as God please.

Again, Every *Being* is consider'd either as subsisting in and by its self, and then it is called a *Substance*; or it subsists in and by another, and then it is call'd a *Mode* or *Manner* of *Being*. Tho' few Writers allow *Mode* to be call'd a *Being* in the same perfect Sense as a *Substance* is; and some *Modes* have evidently more of real *Entity* or *Being* than others, as will appear when we come to treat of them. These Things will furnish us with Matter for larger Discourse in the following Sections.

Sect. II.

Of Substances *and their various Kinds.*

A *Substance* is a Being which can subsist by itself, without Dependence upon any other created Being. The Notion of *subsisting by itself* gives occasion to *Logicians* to call it a *Substance*. So a *Horse*, a *House*, *Wood*, *Stone*, *Water*, *Fire*, a *Spirit*, a *Body*, an *Angel* are called *Substances*, because they depend on nothing but God for their Existence.

It has been usual also in the Description of *Substance* to add, it is that which is the Subject of Modes or Accidents; a *Body* is the Substance or Subject, its *Shape* is the Mode.

But lest we be led into Mistakes, let us here take Notice that when a Substance is said to *subsist without Dependence upon another created Being*, all that we mean is, that it cannot be annihilated, or utterly destroy'd and reduced to nothing, by any Power

inferior to that of our Creator; tho' its present particular Form, Nature and Properties may be alter'd and destroy'd by many inferior Causes: a *Horse* may dye and turn to *Dust*; *Wood* may be turned into *Fire*, *Smoak* and *Ashes*; a *House* into *Rubbish*, and *Water* into *Ice* or *Vapour*; but the Substance or Matter of which they are made still remains, tho' the Forms and Shapes of it are alter'd. A *Body* may cease to be a *House* or a *Horse*, but it is a *Body* still; and in this Sense it depends only upon God for its Existence.

Among *Substances* some are *thinking* or conscious Beings, or have a Power of Thought, such as the *Mind of Man*, *God*, *Angels*. Some are *extended* and *solid* or *impenetrable*, that is, they have Dimensions of Length, Breadth, and Depth, and have also a Power of Resistance, or exclude every thing of the same kind from being in the same Place. This is the proper Character of *Matter* or *Body*.

As for the Idea of *Space*, whether it be *void* or *full*, i. e. a *Vacuum* or a *Plenum*, whether it be interspers'd among all Bodies, or may be suppos'd to reach beyond the Bounds of the Creation, it is an Argument too long and too hard to be disputed in this Place what the Nature of it is: It has been much debated whether it be a real Substance, or a mere Conception of the Mind, whether it be the Immensity of the Divine Nature, or the mere Order of co-existent Beings, whether it be the manner of our Conception of the Distances of Bodies, or a mere Nothing. Therefore I drop the Mention of it here.

Now if we seclude *Space* out of our Consideration, there will remain but two Sorts of Substances in the World, i. e. *Matter* and *Mind*, or as we otherwise call them, *Body* and *Spirit*; at least, we have

have no Ideas of any other Substance but these *.

Among Substances, some are called *Simple*, some are *Compound*, whether the Words be taken in a *philosophical* or a *vulgar* Sense.

Simple Substances in a *philosophical* Sense, are either *Spirits* which have no manner of Composition in them, and in this Sense *God* is called a *simple Being*; or they are the first Principles of Bodies, which are usually called *Elements*, of which all other Bodies are compounded: *Elements* are such Substances as cannot be resolved, or reduced, into two or more Substances of different Kinds.

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* Because Men have different Ideas or Notions of *Substance*, I thought it not proper entirely to omit all Account of them, and therefore have thrown them into the Margin.

Some Philosophers suppose that our Acquaintance with *Matter* or *Mind* reaches no farther than the mere Properties of them, and that there is a sort of unknown Being, which is the *Substance* or the *Subject* by which these Properties of *solid Extension*. and of *Cogitation* are supported, and in which these Properties inhere or exist. But perhaps this Notion arises only from our turning the mere abstracted or *logical* Notion of *Substance* or *Self-subsisting* into the Notion of a distinct *physical* or natural Being, without any Necessity. *Solid Extension* seems to me to be the very Substance of *Matter* or of all *Bodies*: and a *Power of thinking, which is always in act*, seems to be the very Substance of all *Spirits*; for *God* himself is an *intelligent, almighty Power*; nor is there any need to seek for any other secret and unknown Being, or *abstracted Substance* entirely distinct from these, in order to support the several *Modes* or *Properties* of *Matter* or *Mind*, for these two Ideas are sufficient for that Purpose; therefore I rather think these are *Substances*.

It must be confest, when we say, *Spirit is a thinking Substance*, and *Matter is an extended solid Substance*, we are sometimes ready to imagine that *Extension* and *Solidity* are but mere *Modes* and *Properties* of a certain unknown *Substance* or Subject which supports them, and which we call *Body*; and that a *Power of thinking*, is but a mere *Mode* and *Property* of some unknown *Substance* or Subject which supports it, and which we call *Spirit*: But I rather take this to be a mere Mistake, which we are led into by the *grammatical* Form and Use of Words; and perhaps our *logical* Way of thinking by *Substantives* and *Adjectives*, helps to deduce us into this Supposition.

However, that I may not be wanting to any of my Readers, I would let them know *Mr. Locke's* Opinion, which has obtain'd much in the present Age, and it is this: "That our Idea of any *particular Substance*, is only "such a Combination of simple Ideas as represents that thing as subsisting "by itself, in which the supposed or confused Idea of *Substance* (such as it "is) is always ready to offer itself. It is a conjunction of Ideas co-existing in such a Cause of their Union, as makes the whole Subject subsist by "itself, though the Cause of their Union be unknown; and our *general* "Idea of *Substance* arises from the Self-subsistence of this Collection of Ideas.

Now if this Notion of *Substance* rest here, and be consider'd merely as an unknown Cause of the Union of Properties, it is much more easy to be admitted: But if we proceed to suppose a sort of real, substantial, distinct Being, different from *solid Quantity* or *Extension* in Bodies, and different from

The various Sects of Philosophers have attributed the Honour of this Name to various Things. The *Peripateticks*, or Followers of *Aristotle*, made *Fire*, *Air*, *Earth* and *Water* to be the four Elements, of which all earthly Things were compounded; and they suppos'd the Heavens to be a *Quintessence*, or fifth sort of Body distinct from all these: But, since experimental Philosophy and Mathematics have been better understood, this Doctrine has been abundantly refuted. The *Chymists* make *Spirit*, *Salt*, *Sulphur*, *Water* and *Earth* to be their five Elements, because they can reduce all terrestrial Things to these five: This seems to come nearer the Truth; though they are not all agreed in this Enumeration of *Elements*. In short, our modern Philosophers generally suppose *Matter* or Body to be one simple Principle, or *solid Extension*, which being diversified by its various Shapes, Quantities, Motions and Situations, makes all the Varieties that are found in the Universe; and therefore they make little Use of the Word *Element*.

Compound Substances are made up of two or more simple Substances: So every Thing in this whole material Creation, that can be reduced by the Art of Man into two or more different Prin-

a *Power of thinking* in Spirits, in my Opinion it is the Introduction of a needless scholastical Notion into the real Nature of Things, and then fancying it to have a real Existence.

Mr. *Locke* in his *Essay of Hum. Und.* Book II. Ch. 22. §. 2. seems to ridicule this common Idea of *Substance*, which Men have generally supposed to be a sort of *Substratum* distinct from all Properties whatsoever, and to be the Support of all Properties. Yet in Book IV. Ch. 3. §. 6. he seems to suppose there may be some such unknown *Substratum*, which may be capable of receiving the Properties both of *Matter* and of *Mind* (viz.) *Extension*, *Solidity*, and *Cogitation*; for he supposes it possible for God to add *Cogitation* to that *Substance* which is *corporeal*, and thus to cause *Matter to think*. If this be true, then Spirits (for ought we know) may be *corporeal Beings* or *thinking Bodies*, which is a Doctrine too favourable to the *Mortality of the Soul*. But I leave these Debates to the Philosophers of the Age, and will not be too positive in my Opinion of this abstruse Subject.

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ciples or Substances, is a *compound Body* in the *philosophical* Sense.

But if we take the Words *Simple* and *Compound* in a *vulgar* Sense, then all those are *simple Substances* which are generally esteem'd uniform in their Natures. So every *Herb* is call'd a *simple*; and every *Metal* and *Mineral*; tho' the Chymist perhaps may find all his several Elements in each of them. So a *Needle* is a *simple* Body, being made only of Steel; but a *Sword* or a *Knife* is a *compound*, because its Haft or Handle is made of Materials different from the Blade. So the *Bark* of *Peru*, or the *Juice* of *Sorrel* is a *simple Medicine*: But when the Apothecaries Art has mingled several Simples together, it becomes a *Compound*, as *Diascordium* or *Mithridate*.

The Terms of *pure* and *mixt*, when applied to Bodies, are much akin to *simple* and *compound*. So a *Guinea* is *pure* Gold, if it has nothing but Gold in it, without any Alloy or baser Metal: But if any other Mineral or Metal be mingled with it, it is call'd a *mixt* Substance, or Body.

Substances are also divided into *animate* and *inanimate*. Animated Substances are either *animal* or *vegetable* *.

Some of the *animated Substances* have various organical or instrumental Parts, fitted for a Variety of Motions from Place to Place, and a Spring of Life within themselves, as *Beasts*, *Birds*, *Fishes*, and *Insects*; these are call'd *Animals*. Other *animated Substances* are call'd *Vegetables* which have within themselves the Principles of another sort of Life and Growth, and of various Pro-

* Note, *Vegetables* as well as *Animals* have gotten the Name of animated Substances, because some of the Ancients supposed *Herbs* and *Plants*, *Beasts* and *Birds*, &c. to have a sort of *Souls* distinct from *Matter* or *Body*.

ductions of *Leaves*, *Flowers* and *Fruit*, such as we see in *Plants*, *Herbs*, and *Trees*.

And there are other *Substances*, which are call'd *inanimate*, because they have no sort of Life in them, as *Earth*, *Stone*, *Air*, *Water*, &c.

There is also one sort of Substance, or Being, which is *compounded of Body and Mind*, or a rational Spirit united to an Animal; such is *Mankind*. *Angels*, or any other Beings of the spiritual and invisible World, who have assum'd visible Shapes for a Season, can hardly be reckon'd among this order of compounded Beings; because they drop their Bodies, and divest themselves of those visible Shapes, when their particular Message is perform'd, and thereby shew that these Bodies do not belong to their Natures.

Sect. III.

Of Modes *and their various Kinds, and first of essential and accidental Modes.*

THE next sort of Objects which are represented in our Ideas, are call'd *Modes*, or *Manners of Being* †.

A *Mode* is that which cannot subsist in and of itself, but is always esteem'd as belonging to, and subsisting by, the Help of some *Substance*, which, for that Reason, is call'd its *Subject*. A Mode must depend on that Substance for its very Existence and Being; and that not as a Being depends on its *Cause*, (for so *Substances* themselves depend

† *Note*, The Term *Mode* is by some Authors applied chiefly to the *Relations* or relative Manners of Being. But in logical Treatises it is often used in a larger Sense, and extends to all *Attributes* whatsoever, and includes the most essential and inward Properties, as well as outward Respects and Relations, and reaches to *Actions* themselves as well as *Manners* of Action.

on

on God their Creator;) but the *very Being of a Mode* depends on some Substance for its *Subject*, in which it is, or to which it belongs; so *Motion*, *Shape*, *Quantity*, *Weight*, are Modes of *Body*; *Knowledge*, *Wit*, *Folly*, *Love*, *Doubting*, *Judging*, are Modes of the *Mind*; for the one cannot subsist without *Body*, and the other cannot subsist without *Mind*.

Modes have their several Divisions, as well as Substances.

I. Modes are either *essential*, or *accidental*.

An *essential Mode*, or *Attribute*, is that which belongs to the very Nature or Essence of the Subject wherein it is; and the Subject can never have the same Nature without it; such is *Roundness* in a *Bowl*, *Hardness* in a *Stone*, *Softness* in *Water*, *vital Motion* in an *Animal*, *Solidity* in *Matter*, *Thinking* in a *Spirit*; for tho' that piece of Wood which is now a *Bowl* may be made *square*, yet if *Roundness* be taken away, it is no longer a *Bowl*: So that very Flesh and Bones, which is now an *Animal*, may be without Life or inward Motion; but if all Motion be entirely gone, it is no longer an Animal, but a Carcass: So if a Body or Matter, be divested of *Solidity*, it is a mere void Space or Nothing; and if *Spirit* be entirely without *Thinking*, I have no Idea of any thing that is left in it; therefore so far as I am able to judge, *Consciousness* must be its essential Attribute *: Thus all the *Perfections* of *God* are call'd his *Attributes*, for he cannot be without them.

* Note, When I call *solid Extension* an essential Mode or Attribute of *Matter*, and a *Power of Thinking* an essential Mode or Attribute of a *Spirit*, I do it in compliance with common Forms of Speech: but perhaps in reality these are the very Essences or Substances themselves, and the most substantial Ideas that we can frame of *Body* and *Spirit*, and have no need of any (we know not what) *Substratum* or unintelligible Substance to support them in their Existence or Being.

An *essential Mode* is either *primary* or *secondary*.

A *primary essential Mode* is the first, or chief Thing, that constitutes any Being in its particular Essence, or Nature, and makes it to be that which it is, and distinguishes it from all other Beings: This is call'd the *Difference* in the *Definition* of Things, of which hereafter: So *Roundness* is the primary essential Mode, or Difference of a *Bowl*; the *meeting* of *two Lines* is the primary essential Mode, or the Difference of an *Angle*; the *perpendicularity* of these Lines to each other is the Difference of a *right Angle*: *Solid Extension is the primary Attribute*, or Difference of *Matter*: *Consciousness*, or at least a *Power of Thinking*, is the Difference, or primary Attribute of a *Spirit**; and to *fear and love God* is the primary Attribute of a *pious Man*.

A secondary essential Mode is any other Attribute of a Thing, which is not of primary Consideration: This is call'd a *Property*: Sometimes indeed it goes toward making up the Essence, especially of a *complex Being*, so far as we are acquainted with it; sometimes it depends upon, and follows from the Essence of it; so *Volubility*, or *Aptness* to *roul*, is the Property of a *Bowl*, and is derived from its *Roundness*. *Mobility*, and *Figure* or *Shape*, are Properties of *Matter*; and it is the Property of a *pious Man* to *love his Neighbour*.

An *accidental Mode*, or an *Accident*, is such a Mode, as is not necessary to the Being of a Thing, for the Subject may be without it, and yet remain of the same Nature that it was before; or it is that Mode, which may be separated or abolisht from its Subject; so *Smoothness* or *Roughness*, *Blackness* or *Whiteness*, *Motion* or *Rest*, are the Accidents of a *Bowl*; for these may be all chang'd, and yet the Body remain a *Bowl* still: *Learning*,

* See the Note in the foregoing page.

Justice,

Justice, *Folly*, *Sickness*, *Health*, are the Accidents of a *Man*: *Motion*, *Squareness*, or any *particular Shape* or *Size*, are the Accidents of *Body*: Yet *Shape* and *Size* in general are essential Modes of it; for a Body must have some Size and Shape, nor can it it be without them: So *Hope*, *Fear*, *Wishing*, *Assenting*, and *Doubting*, are Accidents of the *Mind*, tho' *Thinking* in general seems to be essential to it.

Here observe, that the Name of *Accident* has been oftentimes given by the old *Peripatetic* Philosophers to all Modes, whether essential or accidental; but the Moderns confine this Word *Accident* to the Sense in which I have described it.

Here it should be noted also, that tho' the Word *Property* be limited sometimes in logical Treatises to the *secondary essential Mode*, yet it is used in common Language to signify these four sorts of *Modes*; of which some are *essential*, and some *accidental*.

(1.) Such as belong to *every* Subject of that kind, but *not only* to those Subjects. So *yellow Colour* and *Ductility* are Properties of *Gold*; they belong to *all* Gold, but not *only* to Gold; for Saffron is also *yellow*, and Lead is *ductile*.

(2.) Such as belong only to one kind of Subject but *not* to *every* Subject of that kind. So *Learning*, *Reading*, and *Writing*, are Properties of *human Nature*; they belong *only* to Man, but *not* to *all* Men.

(2.) Such as belong to *every* Subject of one kind, and *only* to them, but *not always*. So *Speech* or *Language* is a Property of *Man* for it belongs to *all* Men, and to Men *only*; but Men are *not always* speaking.

(4.) Such as belong to *every* Subject of one kind, and to them *only* and *always*. So *Shape* and *Divisibility*

Divisibility are Properties of *Body*; so *Omniscience* and *Omnipotence* are Properties of the *divine Nature*, for in this Sense *Properties* and *Attributes* are the same, and except in *logical* Treatises there is scarce any Distinction made between them. These are call'd *Propria quarto modo* in the Schools, or *Properties of the fourth Sort.*

Note, Where there is any one *Property* or *essential Attribute* so superior to the rest, that it appears plainly that all the rest are deriv'd from it, and such as is sufficient to give a full Distinction of that Subject from all other Subjects, this Attribute, or Property, is call'd the *essential Difference*, as is before declared; and we commonly say, the *Essence* of the Thing consists in it; so the *Essence of Matter* in general seems to consist in *Solidity*, or *solid Extension*. But for the most part, we are so much at a Loss in finding out the intimate Essence of *particular natural* Bodies, that we are forced to distinguish the *essential Difference* of most Things by a *Combination of Properties*. So a *Sparrow* is a Bird, which has such colour'd Feathers, and such a particular Size, Shape and Motion. So *Wormwood* is a Herb, which has such a Leaf of such a Colour, and Shape, and Taste, and such a Root and Stalk. So Beasts and Fishes, Minerals, Metals and Works of Art sometimes, as well as of Nature, are distinguished by such a *Collection of Properties*.

Sect. IV.

The further Divisions of Mode.

II. THE *second* Division of Modes is into *absolute* and *relative*. An *absolute Mode* is that which belongs to its Subject, without Respect

spect to any other Beings whatsoever: But a *relative Mode* is derived from the Regard that one Being has to others. So *Roundness* and *Smoothness* are the *absolute* Modes of a *Bowl*; for if there were nothing else existing in the whole Creation, a Bowl might be *round* and *smooth:* But *Greatness* and *Smallness* are relative Modes; for the very Ideas of them are deriv'd merely from the Comparison of one Being with others: a Bowl of four Inches Diameter is *very great*, compar'd with one of an Inch and a half; but it is *very small* in Comparison of another Bowl, whose Diameter is eighteen or twenty Inches. *Motion* is the absolute Mode of a Body, but *Swiftness* or *Slowness* are relative Ideas; for the Motion of a Bowl on a Bowling-Green is *swift*, when compar'd with a Snail; and it is *slow*, when compar'd with a Cannon-Bullet.

These *relative Modes* are largely treated of by some *logical* and *metaphysical* Writers under the Name of *Relation:* And these *Relations* themselves are farther subdivided into *such as arise from the Nature of Things*, and such as *arise* merely *from the Operation of our Minds*; one sort are called *real Relations*, the other *mental*; so the *Likeness of one Egg to another* is a *real Relation*, because it arises from the real Nature of Things; for whether there was any Man or Mind to conceive it or no, one Egg would be like another: But when we consider an Egg as a *Noun Substantive* in Grammar, or as signified by the Letters *e*, *g*, *g*, these are mere *mental Relations*, and derive their very Nature from the Mind of Man. These sort of Relations are call'd by the Schools *Entia Rationis*, or *second Notions*, which have no real Being, but by the Operation of the Mind.

III. The

III. The *third* Diviſion of Modes ſhews us, they are either *intrinſical* or *extrinſical*. *Intrinſical Modes* are conceiv'd to be in the Subject or Subſtance, as when we ſay a *Globe* is *round*, or *ſwift*, *rolling*, or at *reſt*: Or when we ſay a *Man* is *tall*, or *learned*, theſe are *intrinſic Modes*: But *extrinſic Modes* are ſuch as ariſe from ſomething that is not in the Subject or Subſtance it ſelf; but it is a manner of Being which ſome Subſtances attain by Reaſon of ſomething that is external or foreign to the Subject; as, *This Globe lies within two Yards of the Wall*; or *this Man is belov'd* or *hated*. *Note*, Such ſort of Modes, as this laſt Example, are call'd *external Denominations*.

IV. There is a *fourth* Diviſion much akin to this, whereby Modes are ſaid to be *Inherent* or *Adherent*, that is, *Proper* or *Improper*. *Adherent* or *improper Modes* ariſe from the joining of ſome accidental Subſtance to the chief Subject, which yet may be ſeparated from it; ſo when a *Bowl is wet*, or a *Boy is cloath'd*, theſe are *adherent Modes*; for the Water and the Cloaths are diſtinct Subſtances which adhere to the *Bowl*, or to the *Boy*: But when we ſay, the *Bowl is ſwift* or *round*; when we ſay, the *Boy is ſtrong or witty*, theſe are *proper* or *inherent Modes*, for they have a ſort of *In-being* in the Subſtance it ſelf, and don't ariſe from the Addition of any other Subſtance to it.

V. *Action* and *Paſſion* are Modes or Manners which belong to Subſtances, and ſhould not entirely be omitted here. When a *Smith with a Hammer* ſtrikes a piece of *Iron*, the *Hammer* and the *Smith* are both *Agents*, or Subjects of Action;

tion; the one is the *Prime* or *Supreme*, the other the *Subordinate:* The Iron is the *Patient*, or the Subject of Passion, in a *philosophical* Sense, because it receives the Operation of the Agent: Tho' this Sense of the Words *Passion* and *Patient* differs much from the vulgar Meaning of them*.

VI. The *sixth* Division of Modes may be into *Physical*, i. e. *Natural*, *Civil*, *Moral*, and *Supernatural*. So when we consider the Apostle *Paul*, who was a little Man, a *Roman* by the Privilege of his Birth, a Man of Virtue or Honesty, and an inspired Apostle; his *low Stature* is a *physical* Mode, his being a *Roman* is a *civil* Privilege, his *Honesty* is a *moral* Consideration, and his being *inspired* is *supernatural*.

VII. Modes belong either to *Body* or to *Spirit*, or to *both*. *Modes of Body* belong only to Matter or to corporeal Beings; and these are *Shape*, *Size*, *Situation*, or *Place*, &c. *Modes of Spirit* belong only to Minds; such are *Knowledge*, *Assent*, *Dissent*, *Doubting*, *Reasoning*, &c. Modes which belong to both have been sometimes call'd *mixt Modes*, or *human Modes*, for these are only found in human Nature, which is compounded both of Body and Spirit; such are *Sensation*, *Imagination*, *Passion*, &c. in all which there is a Concurrence of the Operations both of Mind and Body, *i. e.* of animal and intellectual Nature.

But the *Modes of Body* may be yet farther distinguish'd. Some of them are *primary Modes or*

* Note, *Agent* signifies the *Doer*, *Patient* the *Sufferer*, *Action* is *Doing*, *Passion* is *Suffering*, *Agent* and *Action* have retained their original and philosophical Sense, tho' *Patient* and *Passion* have acquired a very different Meaning in common Language.

Qualities, for they belong to Bodies consider'd in themselves, whether there were any Man to take Notice of them or no; such are those beforemention'd (*viz*) *Shape*, *Size*, *Situation*, &c. *Secondary Qualities*, or *Modes*, are such Ideas as we ascribe to Bodies on account of the various Impressions which are made on the Senses of Men by them; and these are call'd *sensible Qualities*, which are very numerous; such are all *Colours*, as *Red*, *Green*, *Blue*, &c. such are all *Sounds*, as *Sharp*, *Shrill*, *Loud*, *Hoarse*; all *Tastes*, as *Sweet*, *Bitter*, *Sour*; all *Smells*, whether *Pleasant*, *Offensive*, or *Indifferent*; and all *Tactile Qualities*, or such as affect the *Touch* or *Feeling* (viz.) *Heat*, *Cold*, &c. These are properly call'd *secondary Qualities*, for tho' we are ready to conceive them as existing in the very Bodies themselves which affect our Senses, yet true Philosophy has most undeniably prov'd that all these are really various Ideas or Perceptions excited in human Nature, by the different Impressions that Bodies make upon our Senses by their *primary Modes*, i. e. by Means of the different Shape, Size, Motion and Position of those little invisible Parts that compose them. Thence it follows that a *secondary Quality* consider'd as in the Bodies themselves, is nothing else but a Power or Aptitude to produce such Sensations in us. See *Locke*'s Essay of the Understanding, Book 2. Ch. 8.

VIII. I might add in the last Place, that as *Modes* belong to *Substances*, so there are some also that are but *Modes of other Modes:* For tho' they subsist in and by the *Substance*, as the original Subject of them, yet they are properly and directly attributed to some *Mode* of that Substance. *Motion* is the Mode of a Body; but the *Swift-*

ness, or *Slowness* of it, or its *Direction to the North or South*, are but Modes of Motion. *Walking* is the Mode or Manner of Man, or of a Beast; but *Walking gracefully* implies a Manner or Mode superadded to that Action. All comparative and superlative Degrees of any Quality, are the *Modes of a Mode*, as *Swifter* implies a greater *Measure of Swiftness*.

It would be too tedious here to run thro' all the *Modes*, *Accidents*, and *Relations* at large that belong to various Beings, and are copiously treated of in *general*, in the Science call'd *Metaphysicks*, or more properly *Ontology:* They are also treated of in *particular* in those *Sciences* which have assum'd them severally as their proper Subjects.

Sect. V.

Of the ten Categories. Of Substance modify'd.

WE have thus given an Account of the two chief *Objects* of our *Ideas* (viz.) *Substances* and *Modes*, and their various Kinds: And in these last Sections we have briefly compriz'd the greatest part of what is necessary in the famous ten Ranks of Being, call'd the ten *Predicaments* or *Categories* of *Aristotle*, on which there are endless Volumes of Discourses form'd by several of his Followers. But that the Reader may not utterly be ignorant of them, let him know the Names are these: *Substance*, *Quantity*, *Quality*, *Relation*, *Action*, *Passion*, *Where*, *When*, *Situation* and *Cloathing*. It would be mere Loss of Time to shew how loose, how injudicious, and even ridiculous, is this ten-fold Division of Things: And whatsoever farther relates to them, and which

may

may tend to improve uſeful Knowledge, ſhould be ſought in *Ontology*, and in other *Sciences*.

Beſides *Subſtance* and *Mode*, ſome of the Moderns would have us conſider the *Subſtance modified*, as a diſtinct Object of our Ideas; but I think there is nothing more that need be ſaid on this Subject, than this, *(viz.)* There is ſome Difference between a Subſtance when it is conſider'd *with all its Modes* about it, or cloath'd in all its Manners of Exiſtence, and when it is diſtinguiſh'd from them, and conſider'd naked *without them*.

Sect. VI.

Of Not-Being.

As *Being* is divided into *Subſtance* and *Mode*, ſo we may conſider *Not-Being* with Regard to both theſe.

I. *Not-Being* is conſider'd as excluding all *Subſtance*, and then all Modes are alſo neceſſarily excluded, and this we call *pure Nihility*, or *mere Nothing*.

This *Nothing* is taken either in a *vulgar* or a *philoſophical* Senſe; ſo we ſay *there is nothing in the Cup*, in a vulgar Senſe, when we mean there is *no Liquor* in it; but we cannot ſay *there is nothing in the Cup*, in a ſtrict philoſophical Senſe, while there is *Air* in it, and perhaps a Million of *Rays of Light* are there.

II. *Not-Being*, as it has relation to *Modes* or Manners of Being, may be conſider'd either as a mere *Negation*, or as a *Privation*.

A *Negation* is the Abſence of that which does not naturally belong to the Thing we are ſpeaking of, or which has no Right, Obligation, or Neceſſity to be preſent with it; as when we ſay

a Stone

a Stone is Inanimate, or *Blind*, or *Deaf*, i. e. it has no *Life*, nor *Sight*, or *Hearing*; or when we say a *Carpenter* or a *Fisherman* is *unlearned*; these are mere *Negations*.

But a *Privation* is the Absence of what does naturally belong to the Thing we are speaking of, or which ought to be present with it, as when a *Man*, or a *Horse* is *deaf*, or *blind*, or *dead*, or if a *Physician* or a *Divine* be unlearned, these are call'd *Privations:* So the *Sinfulness of any human Action* is said to be a *Privation*; for *Sin* is that want of Conformity to the Law of God, which ought to be found in every Action of Man.

Note, There are some Writers who make all sort of *relative Modes* or *Relations*, as well as all *external Denominations* to be mere *Creatures of the Mind*, and *entia Rationis*, and then they rank them also under the general Head of *Not-Beings*; but it is my Opinion, that whatsoever may be determin'd concerning mere *mental Relations* and *external Denominations*, which seem to have something less of *Entity* or *Being* in them, yet there are many *real Relations*, which ought not to be reduc'd to so low a Class; such are the *Situation* of Bodies, their mutual *Distances*, their particular *Proportions* and *Measures*, the Notions of *Fatherhood*, *Brotherhood*, *Sonship*, &c. all which are *relative Ideas*. The very Essence of *Virtue* or *Holiness* consists in the Conformity of our Actions to the Rule of Right Reason, or the Law of God: The Nature and Essence of *Sincerity* is the Conformity of our Words and Actions to our Thoughts, all which are but *mere Relations*; and I think we must not reduce such positive Beings as *Piety*, and *Virtue*, and *Truth*, to the Rank of *Non-Entities*, which have nothing real in them, tho' *Sin* (or rather the *Sinfulness* of an Action)

may be properly call'd a *Not-Being*, for it is a want of *Piety* and *Virtue*. This is the moſt uſual and perhaps the juſteſt Way of repreſenting theſe Matters.

CHAP. III.

Of the ſeveral Sorts of Perceptions or Ideas.

IDEAS may be divided with Regard to their *Original*, their *Nature*, their *Objects* and their *Qualities*.

SECT. I.

Of ſenſible, ſpiritual, and abſtracted Ideas.

THERE has been a great Controverſy, about the *Origin of Ideas*, (viz.) whether any of our Ideas are *innate* or no, *i. e.* born with us, and naturally belonging to our Minds. Mr. *Locke* utterly denies it; others as poſitively affirm it. Now, though this Controverſy may be compromiſed, by allowing that there is a Senſe, wherein our firſt Ideas of ſome Things may be ſaid to be *innate*, (as I have ſhewn in ſome Remarks on Mr. *Locke*'s Eſſay, which have lain long by me) yet it does not belong to this Place and Buſineſs to have that Point debated at large, nor will it hinder our Purſuit of the preſent Work to paſs it over in Silence.

There is ſufficient Ground to ſay, that all our Ideas, with Regard to their *Original*, may be divided into three ſorts (viz.) *ſenſible*, *ſpiritual*, and *abſtracted* Ideas.

I. *Senſible* or *corporeal Ideas* are deriv'd originally from our Senſes, and from the Communication which

which the Soul has with the animal Body in this present State; such are the Notions we frame of all *Colours*, *Sounds*, *Tastes*, *Figures*, or *Shapes* and *Motions*; for our Senses being conversant about particular sensible Objects become the Occasions of several distinct Perceptions in the Mind; and thus we come by the Ideas of *Yellow*, *White*, *Heat*, *Cold*, *Soft*, *Hard*, *Bitter*, *Sweet*, and all those which we call *sensible Qualities*. All the Ideas which we have of *Body*, and the several Modes and Properties that belong to it, seem to be deriv'd from *Sensation*.

And howsoever these may be treasured up in the *Memory*, and by the Work of *Fancy* may be increas'd, diminish'd, compounded, divided, and diversified, (which we are ready to call *our Invention*) yet they all derive their first Nature and Being from something that has been let into our Minds by one or other of our Senses. If I think of a *golden Mountain*, or a *Sea of liquid Fire*, yet the single Ideas of *Sea*, *Fire*, *Mountain*, and *Gold* came into my Thoughts at first by Sensation; the Mind has only compounded them.

II.* *Spiritual* or *intellectual Ideas* are those which we gain by reflecting on the Nature and Actions of our own Souls, and turning our Thoughts within our selves, and observing what is transacted in our own Minds. Such are the Ideas we have of *Thought*, *Assent*, *Dissent*, *Judging*, *Reason*, *Knowledge*, *Understanding*, *Will*, *Love*, *Fear*, *Hope*.

By *Sensation* the Soul contemplates Things (as it were) out of itself, and gains *corporeal* Representations or *sensible* Ideas: By *Reflection* the Soul contemplates itself, and Things within itself, and

* *Note*, Here the Word *Spiritual* is used in a mere natural, and not in a religious Sense.

by this Means it gains *ſpiritual* Ideas, or Repreſentations of Things *intellectual.*

Here it may be noted, that tho' the firſt Original of theſe two Sorts of Ideas, (*viz.*) *Senſible* and *Spiritual*, may be entirely owing to theſe two Principles, *Senſation* and *Reflection*, yet the *Recollection* and freſh *Excitation* of them may be owing to a thouſand other Occaſions and Occurrences of Life. We could never inform a Man who was born Blind or Deaf, what we mean by the Words *Yellow*, *Blue*, *Red*, or by the Words *Loud* or *Shrill*, nor convey any juſt Ideas of theſe Things to his Mind, by all the Powers of Language, unleſs he has experienc'd thoſe Senſations of Sound and Colour; nor could we ever gain the Ideas of *Thought*, *Judgment*, *Reaſon*, *Doubting*, *Hoping*, &c. by all the Words that Man could invent, without turning our Thoughts inward upon the Actions of our own Souls. Yet when once we have attain'd theſe Ideas by *Senſation* and *Reflection*, they may be excited afreſh by the Uſe of Names, Words, Signs, or by any Thing elſe that has been connected with them in our Thoughts; for when two or more Ideas have been aſſociated together, whether it be by Cuſtom, or Accident, or Deſign, the one preſently brings the other to Mind.

III. Beſides theſe *two* which we have nam'd, there is a *third* ſort of Ideas, which are commonly call'd *abſtracted Ideas*, becauſe tho' the original Ground or Occaſion of them may be *Senſation*, or *Reflection*, or *both*, yet theſe Ideas are fram'd by another Act of the Mind which we uſually call *Abſtraction.* Now the Word *Abſtraction* ſignifies *a withdrawing ſome Parts of an Idea from other Parts of it*, by which Means ſuch *abſtracted Ideas* are form'd, as neither repreſent any Thing *corporeal*

real or *spiritual*, i. e. any thing peculiar or proper to *Mind* or *Body*. Now these are of two kinds.

Some of these *abstracted Ideas* are the most *absolute*, general and universal Conceptions of Things consider'd in themselves, without Respect to others, such as *Entity* or *Being*, and *Not-being*, *Essence*, *Existence*, *Act*, *Power*, *Substance*, *Mode*, *Accident*, &c.

The other sort of *abstracted Ideas* is *relative*, as when we compare several Things together, and consider merely the *Relations* of one Thing to another, entirely dropping the Subjects of those Relations, whether they be corporeal or spiritual; such are our Ideas of *Cause*, *Effect*, *Likeness*, *Unlikeness*, *Subject*, *Object*, *Identity*, or *Sameness*, and *Contrariety*, *Order*, and other Things which are treated of in *Ontology*.

Most of the *Terms of Art* in several Sciences may be rank'd under this Head of *abstracted Ideas*, as *Noun*, *Pronoun*, *Verb*, in Grammar, and the several Particles of Speech, as *wherefore*, *therefore*, *when*, *how*, *altho'*, *howsoever*, &c. So *Connections*, *Transitions*, *Similitudes*, *Tropes*, and their various Forms in Rhetorick.

These *abstracted Ideas*, whether *absolute* or *relative*, cannot so properly be said to derive their immediate, compleat and distinct Original, either from *Sensation* or *Reflection*, (1.) Because the Nature and the Actions both of *Body* and *Spirit* give us Occasion to frame exactly the same Ideas of *Essence*, *Mode*, *Cause*, *Effect*, *Likeness*, *Contrariety*, &c. Therefore these cannot be call'd either *sensible* or *spiritual* Ideas, for they are not exact *Representations either of the peculiar Qualities or Actions of Spirit or Body*, but seem to be a distinct kind of Idea fram'd in the Mind, to represent our most *general Conceptions* of Things or their

Relations to one another, without any Regard to their Natures, whether they be *corporeal* or *ſpiritual*. And (2.) the ſame general Ideas, of *Cauſe* and *Effect*, *Likeneſs*, &c. may be transferr'd to a thouſand other kinds of Being, whether bodily or ſpiritual, beſides thoſe from whence we firſt deriv'd them: Even thoſe *abſtracted Ideas*, which might be firſt occaſion'd by *Bodies*, may be as properly afterward attributed to *Spirits*.

Now, though Mr. *Locke* ſuppoſes *Senſation* and *Reflection* to be the two only Springs of all Ideas, and that theſe two are ſufficient to furniſh our Minds with all that rich Variety of Ideas which we have; yet *Abſtraction* is certainly a different Act of the Mind, whence theſe *abſtracted Ideas* have their Original; tho' perhaps Senſation or Reflection may furniſh us with all the firſt Objects and Occaſions whence theſe *abſtracted Ideas* are excited and deriv'd. Nor in this Senſe and View of Things can I think Mr. *Locke* himſelf would deny my Repreſentation of the Original of *abſtracted Ideas*, nor forbid them to ſtand for a diſtinct *Species*.

Note, Tho' we have divided Ideas in this Chapter into three Sorts (*viz.*) *ſenſible*, *ſpiritual*, and *abſtracted*, yet it may not be amiſs juſt to take notice here, that as *Man* may be called a *compound Subſtance*, being made up of Body and Mind, and the *Modes* which ariſe from this Compoſition are called *mixed Modes*, ſuch as *Senſation*, *Paſſion*, *Diſcourſe*, &c. So the *Ideas* of this Subſtance or Being called *Man*, and of theſe mixed Modes, may be called *mixt Ideas*, for they are not properly and ſtrictly *ſpiritual*, *ſenſible*, or *abſtracted*.

SECT.

Sect. II.

Of simple and complex, compound and collective Ideas.

IDEAS consider'd in their *Nature*, are either *simple* or *complex*.

A *simple Idea* is one uniform Idea which cannot be divided or distinguish'd by the Mind of Man into two or more Ideas; such are a Multitude of our Sensations, as the Idea of *Sweet*, *Bitter*, *Cold*, *Heat*, *White*, *Red*, *Blue*, *Hard*, *Soft*, *Motion*, *Rest*, and perhaps *Extension* and *Duration:* Such are also many of our spiritual Ideas; such as *Thought*, *Will*, *Wish*, *Knowledge*, &c.

A *complex Idea* is made by joining two or more simple Ideas together; as a *Square*, a *Triangle*, a *Cube*, a *Pen*, a *Table*, *Reading*, *Writing*, *Truth*, *Falshood*, a *Body*, a *Man*, a *Horse*, an *Angel*, a *heavy Body*, a *swift Horse*, &c. Every Thing that can be divided by the Mind into two or more Ideas is call'd *complex*.

Complex Ideas are often consider'd as *single* and *distinct Beings*, tho' they may be made up of several *simple* Ideas; so a *Body*, a *Spirit*, a *House*, a *Tree*, a *Flower*. But when several of these Ideas of a *different Kind* are join'd together, which are wont to be consider'd as distinct single Beings, this is call'd a *compounded Idea*, whether these united Ideas be simple or complex. So a Man is compounded of *Body* and *Spirit*, so *Mithridate* is a *compound Medicine*, because it is made of many *different* Ingredients: This I have shewn under the Doctrine of *Substances*. And *Modes* also may be compounded; *Harmony* is a compound Idea, made up of *different Sounds united*; so several *different Virtues* must be united to make up the

compounded Idea or Character, either of a *Hero*, or a *Saint*.

But when many Ideas of the *ſame Kind* are join'd together and united in one Name, or under one View, it is call'd a *collective Idea*; ſo an *Army*, or a *Parliament*, is a Collection of Men; a *Dictionary* or *Nomenclatura* is a Collection of Words; a *Flock* is a Collection of Sheep; a *Foreſt*, or *Grove*, a Collection of Trees; a *Heap* is a Collection of Sand, or Corn, or Duſt, *&c.* a *City* is a Collection of Houſes; a *Noſegay* is a Collection of Flowers; a *Month*, or a *Year*, is a Collection of Days, and a *Thouſand* is a Collection of Units.

The preciſe Difference between a *compound* and *collective* Idea is this, that a *compound* Idea unites Things of a different Kind, but a *collective* Idea Things of the ſame Kind: tho' this Diſtinction in ſome Caſes is not accurately obſerv'd, and Cuſtom oftentimes uſes the Word *compound* for *collective*.

Sect. III.

Of univerſal and particular Ideas, *real and imaginary*.

IDEAS, according to their *Objects*, may firſt be divided into *particular* or *univerſal*.

A *particular Idea* is that which repreſents one Thing only.

Sometimes the one Thing is repreſented in a looſe and indeterminate manner, as when we ſay *ſome Man*, *any Man*, *one Man*, *another Man*; *ſome Horſe*, *any Horſe*; *one City*, or *another*, which is call'd by the Schools *Individuum Vagum*.

Sometimes the *particular Idea* repreſents one Thing in a determinate manner, and then it is call'd

call'd a *ſingular Idea*; ſuch is *Bucephalus* or *Alexander*'s Horſe, *Cicero* the Orator, *Peter* the Apoſtle, the Palace of *Verſailles*, *this Book*, *that River*, the *new Foreſt*, or the City of *London:* That Idea which repreſents one particular determinate Thing to me is call'd a *ſingular Idea*, whether it be ſimple, or complex, or compound.

The *Object* of any particular Idea, as well as the *Idea* itſelf, is ſometimes call'd an *Individual:* So *Peter* is an individual Man, *London* is an individual City. So *this Book*, *one Horſe*, *another Horſe*, are all *Individuals*; tho' the Word *Individual* is more uſually limited to one *ſingular*, *certain*, and *determin'd* Object.

An *univerſal Idea* is that which repreſents a common Nature agreeing to ſeveral particular Things; ſo a *Horſe*, a *Man*, or a *Book*, are call'd *univerſal Ideas*, becauſe they agree to all *Horſes*, *Men*, or *Books*.

And I think it is not amiſs to intimate, in this Place, that theſe *univerſal Ideas* are form'd by that Act of the Mind which is call'd *Abſtraction*, i. e. a withdrawing ſome part of an Idea from other Parts of it: For when *ſingular Ideas* are firſt let into the Mind by Senſation or Reflection, then, in order to make them *univerſal*, we leave out, or drop, all thoſe peculiar and determinate Characters, Qualities, Modes, or Circumſtances, which belong merely to any particular individual Being, and by which it differs from other Beings; and we only contemplate thoſe Properties of it, wherein it agrees with other Beings.

Tho' it muſt be confeſs'd, that the Name of *abſtracted Ideas* is ſometimes attributed to *univerſal Ideas*, both *ſenſible* or *ſpiritual*, yet this *Abſtraction* is not ſo great; as when we drop out of our Idea every *ſenſible* or *ſpiritual* Repreſentation, and

and retain nothing but the moſt *general* and *abſolute* Conceptions of Things, or their mere *Relations* to one another, without any Regard to their particular Natures, whether they be *ſenſible* or *ſpiritual.* And it is to this Kind of Conceptions we more properly give the Name of *abſtracted Ideas* as in the firſt Section of this Chapter.

An *univerſal Idea* is either *general* or *ſpecial.*

A *general Idea* is call'd by the Schools a *Genus*; and it is one common Nature agreeing to ſeveral other common Natures. So *Animal* is a *Genus*, becauſe it agrees to *Horſe*, *Lyon*, *Whale*, *Butterfly*, which are alſo common Ideas; ſo *Fiſh* is a *Genus*, becauſe it agrees to *Trout*, *Herring*, *Crab*, which are common Natures alſo.

A *ſpecial Idea* is call'd by the Schools, a *Species*; it is one common Nature that agrees to ſeveral ſingular individual Beings; ſo Horſe is a *ſpecial Idea*, or a *Species*, becauſe it agrees to *Bucephalus*, *Trott* and *Snow-ball.* *City* is a *ſpecial Idea*, for it agrees to *London*, *Paris*, *Briſtol.*

Note, I^ſt, Some of theſe *Univerſals* are *Genus's*, if compar'd with leſs common Natures; and they are *Species's*, if compar'd with Natures more common. So *Bird* is a *Genus*, if compar'd with *Eagle*, *Sparrow*, *Raven*, which are alſo common Natures: But it is a *Species*, if compar'd with the more general Nature, *Animal.* The ſame may be ſaid of *Fiſh*, *Beaſt*, &c.

This ſort of univerſal Ideas, which may either be conſidered as a *Genus*, or a *Species*, is call'd *Subaltern:* But the higheſt *Genus*, which is never a *Species*, is call'd the *moſt general*; and the loweſt *Species*, which is never a *Genus*, is call'd the *moſt ſpecial.*

It may be obſerved here alſo, that that general Nature or Property wherein one thing agrees with moſt

most other things is call'd its *more remote Genus:* So *Substance* is a remote Genus of *Bird*, or *Beast*, because it agrees not only to all kinds of Animals, but also to things inanimate, as Sun, Stars, Clouds, Metals, Stones, Air, Water, &c. But *Animal* is a *proximate* or *nearest Genus* of *Bird*, because it agrees to fewest other things. Those general Natures which stand between the *nearest* and most *remote* are call'd *Intermediate.*

Note, II^dly, In universal Ideas it is proper to consider their *Comprehension* and their *Extension**.

The *Comprehension* of an Idea regards all the essential Modes and Properties of it: So *Body* in its *Comprehension* takes in *Solidity*, *Figure*, *Quantity*, *Mobility*, &c. So a *Bowl* in its *Comprehension* includes *Roundness*, *Volubility*, &c.

The *Extension* of an universal Idea regards all the particular Kinds and single Beings that are contain'd under it. So a *Body* in its *Extension* includes *Sun*, *Moon*, *Star*, *Wood*, *Iron*, *Plant*, *Animal*, &c. which are several *Species*, or *Individuals*, under the general Name of *Body*. So a *Bowl*, in its *Extension*, includes a *wooden* Bowl, a *brass* Bowl, a *white* and a *black* Bowl, a *heavy* Bowl, &c. and all Kinds of Bowls, together with all the particular individual Bowls in the World.

Note, The *Comprehension of an Idea* is sometimes taken in so large a Sense, as not only to include the essential Attributes, but all the Properties, Modes and Relations whatsoever, that belong to any Being, as will appear *Chap.* VI.

This Account of *Genus* and *Species* is part of that famous Doctrine of *Universals*, which is taught in the Schools, with diverse other Formalities belonging to it; for it is in this Place that they introduce

* *Note*, The Word *Extension* here is taken in a mere *logical* Sense, and not in a *physical* and *mathematical* Sense.

troduce *Difference*, which is the primary eſſential Mode, and *Property* or the ſecondary eſſential Mode, and *Accident* or the accidental Mode; and theſe they call the *five Predicables*, becauſe every Thing that is affirm'd concerning any Being, muſt be either the *Genus*, the *Species*, the *Difference*, ſome *Property*, or ſome *Accident:* But what farther is neceſſary to be ſaid concerning theſe Things, will be mention'd when we treat of *Definition.*

Having finiſh'd the Doctrine of *univerſal and particular Ideas*, I ſhould take notice of another Diviſion of them, which alſo hath Reſpect to their *Objects*; and that is, they are either *real* or *imaginary.*

Real Ideas are ſuch as have a juſt Foundation in Nature, and have real Objects, or Exemplars, which did, or do, or may actually exiſt, according to the preſent State and Nature of Things; ſuch are all our Ideas of *Long*, *Broad*, *Swift*, *Slow*, *Wood*, *Iron*, *Men*, *Horſes*, *Thoughts*, *Spirits*, a cruel *Maſter*, a proud *Beggar*, a *Man* ſeven Foot high.

Imaginary Ideas, which are alſo call'd *fantaſtical*, or *chimerical*, are ſuch as are made by enlarging, diminiſhing, uniting, dividing real Ideas in the Mind, in ſuch a manner, as no Objects, or Exemplars, did or will ever exiſt, according to the preſent Courſe of Nature, tho' the ſeveral Parts of theſe Ideas are borrowed from real Objects; ſuch are the Conceptions we have of a *Centaur*, a *Satyr*, a *golden Mountain*, a *flying Horſe*, a *Dog without a Head*, a *Bull leſs than a Mouſe*, or a *Mouſe as big as a Bull*, and *a Man twenty Foot high.*

Some of theſe *fantaſtic* Ideas are *poſſible*, that is, they are not utterly inconſiſtent in the Nature of Things; and therefore it is within the Reach of Divine Power to make ſuch Objects; ſuch are moſt of the Inſtances already given: But *Impoſſibles* carry

carry an utter Inconsistence in the Ideas which are join'd; such are *self-active Matter*, and *infinite* or *eternal Men*, *a pious Man without Honesty*, or *Heaven without Holiness*.

Sect. IV.

The Division of Ideas, with Regard to their Qualities.

IDEAS, with Regard to their *Qualities*, afford us these several Divisions of them. 1. They are either *clear* and *distinct*, or *obscure* and *confused*. 2. They are *vulgar* or *learned*. 3. They are *perfect* or *imperfect*. 4. They are *true* or *false*.

I. Our Ideas are either *clear* and *distinct*, or *obscure* and *confused*.

Several Writers have distinguished the *clear Ideas* from those that are *distinct*; and the *confus'd* Ideas from those that are *obscure*; and it must be acknowledg'd there may be some Difference between them; for it is the *Clearness* of Ideas for the most part makes them *distinct*; and the *Obscurity* of Ideas is one Thing that will always bring a sort of *Confusion* into them. Yet when these Writers come to talk largely upon this Subject, and to explain and adjust their Meaning with great Nicety, I have generally found that they did not keep up the Distinction they first design'd, but they confound the one with the other. I shall therefore treat of *clear* or *distinct Ideas*, as one and the same sort, and *obscure* or *confused* Ideas, as another.

A *clear and distinct Idea* is that which represents the Object to the Mind with full Evidence and Strength, and plainly distinguishes it from all other Objects whatsoever.

An

An *obſcure and confuſed Idea* repreſents the Object either ſo faintly, ſo imperfectly, or ſo mingled with other Ideas, that the Object of it doth not appear plain to the Mind, nor purely in its own Nature, nor ſufficiently diſtinguiſh'd from other Things.

When we ſee the *Sea* and *Sky nearer at Hand*, we have a *clear* and *diſtinct* Idea of each; but when we look *far* toward the Horizon, eſpecially in a miſty Day, our Ideas of both are but *obſcure* and *confuſed*; for we know not which is *Sea* and which is *Sky*. So when we look at the *Colours of the Rainbow*, we have a *clear* Idea of the *red*, the *blue*, the *green* in the *Middle* of their ſeveral Arches, and a *diſtinct* Idea too, while the Eye fixes there; but when we conſider the *Border* of thoſe Colours, they ſo run into one another that renders their Ideas *confuſed* and *obſcure*. So the Idea which we have of *our Brother*, or *our Friend*, whom we ſee daily, is *clear* and *diſtinct*; but when the Abſence of many Years has injured the Idea, it becomes *obſcure* and *confuſed*.

Note here, that ſome of our Ideas may be very *clear* and *diſtinct* in one Reſpect, and very *obſcure* and *confuſed* in another. So when we ſpeak of a *Chiliagonum*, or a *Figure of a thouſand Angles*, we may have a *clear* and *diſtinct rational Idea* of the Number *one thouſand Angles*, for we can demonſtrate various Properties concerning it by Reaſon: But the *Image*, or *ſenſible Idea*, which we have of the Figure, is but *confuſed* and *obſcure*; for we cannot preciſely diſtinguiſh it by *Fancy* from the Image of a *Figure that has nine hundred Angles or nine hundred and ninety*. So when we ſpeak of the *infinite Diviſibility of Matter*, we always keep in our Minds a very clear and diſtinct Idea of *Diviſion and Diviſibility:* But after we have made a little

little Progress in dividing, and come to Parts that are far too small for the Reach of our Senses, then our *Ideas*, or *sensible Images* of these little Bodies, become *obscure* and *indistinct*, and the Idea of *Infinite* is very *obscure*, *imperfect* and *confused*.

II. Ideas are either *vulgar* or *learned*. A *vulgar Idea* represents to us the most obvious and sensible Appearances that are contained in the Object of them: But a *learned Idea* penetrates farther into the Nature, Properties, Reasons, Causes and Effects of Things. This is best illustrated by some Examples.

It is a *vulgar Idea* that we have of a *Rainbow*, when we conceive a large Arch in the Clouds, made up of various Colours parallel to each other: But it is a *learned Idea* which a Philosopher has when he considers it as the various Reflections and Refractions of Sun-Beams, in Drops of falling Rain. So it is a *vulgar Idea* which we have of the *Colours of solid Bodies*, when we perceive them to be, as it were, a red, or blue, or green Tincture of the Surface of those Bodies: But it is a *philosophical Idea* when we consider the *various Colours* to be nothing else but different Sensations excited in us by the variously refracted Rays of Light, reflected on our Eyes in a different Manner, according to the different Size, or Shape or Situation of the Particles of which the Surfaces of those Bodies are compos'd. It is a *vulgar Idea* which we have of a *Watch* or *Clock*, when we conceive of it as a pretty Instrument, made to shew us the Hour of the Day: But it is a *learned Idea* which the *Watchmaker* has of it, who knows all the several Parts of it, the Spring, the Balance, the Chain, the Wheels, their Axles, *&c.* together with the various Connections and Adjustments

Adjuſtments of each Part, whence the exact and uniform Motion of the Index is deriv'd, which points to the Minute or the Hour. So when a common Underſtanding reads *Virgil*'s *Æneid*, he has but a *vulgar Idea* of that Poem, yet his Mind is naturally entertained with the Story, and his Ears with the Verſe: But when a *Critick* or a Man who has Skill in Poeſy, reads it, he has a *learned Idea* of its peculiar Beauties, he taſtes and reliſhes a ſuperior Pleaſure; he admires the *Roman* Poet, and wiſhes he had known the *Chriſtian Theology*, which would have furniſh'd him with nobler Materials and Machines than all the *Heathen* Idols.

It is with a *vulgar Idea* that the World beholds the Cartoons of *Raphael* at *Hampton-Court*, and every one feels his Share of Pleaſure and Entertainment: But a *Painter* contemplates the Wonders of that *Italian* Pencil, and ſees a thouſand Beauties in them which the vulgar Eye neglected: His *learned Ideas* give him a tranſcendent Delight, and yet, at the ſame Time, diſcover the Blemiſhes which the common Gazer never obſerv'd.

III. Ideas are either *perfect* or *imperfect*, which are otherwiſe call'd *adequate* or *inadequate*.

Thoſe are *adequate Ideas* which perfectly repreſent their Archetypes or Objects. *Inadequate Ideas* are but a partial, or incomplete Repreſentation of thoſe Archetypes to which they are referr'd.

All our *ſimple Ideas* are in ſome Senſe *adequate* or *perfect*, becauſe *ſimple Ideas*, conſider'd merely as our firſt Perceptions, have no Parts in them: So we may be ſaid to have a perfect Idea of *White*, *Black*, *Sweet*, *Sour*, *Length*, *Light*, *Motion*, *Reſt*, &c. We have alſo a perfect Idea of various Figures, as a *Triangle*, a *Square*, a *Cylinder*,

der, a *Cube*, a *Sphere*, which are complex Ideas: But our Idea or Image of a *Figure of a thousand Sides*, our Idea of the *City of London*, or the *Powers of a Loadstone*, are very imperfect, as well as all our Ideas of *infinite Length* or *Breadth*, *infinite Power*, *Wisdom* or *Duration*; for the Idea of *infinite* is endless and ever growing, and can never be compleated.

Note, 1. When we have a perfect Idea of any thing in all its *Parts*, it is call'd a *complete Idea*; when in all its *Properties*, it is call'd *comprehensive*. But when we have but an *inadequate* and *imperfect* Idea, we are only said to *apprehend* it; therefore we use the Term *Apprehension*, when we speak of our Knowledge of God, who can never be *comprehended* by his Creatures.

Note, 2. Tho' there are a Multitude of Ideas which may be call'd *perfect*, or *adequate* in a *vulgar Sense*, yet there are scarce any Ideas which are *adequate*, *comprehensive* and *complete* in a *philosophical Sense*; for there is scarce any thing in the World that we know, as to all the Parts and Powers, and Properties of it in Perfection. Even so plain an Idea as that of a *Triangle*, has, perhaps, infinite Properties belonging to it, of which we know but a few. Who can tell what are the Shapes and Positions of those Particles, which cause all the Variety of Colours that appear on the Surface of Things? Who knows what are the Figures of the little Corpuscles that compose and distinguish different Bodies? The Ideas of *Brass*, *Iron*, *Gold*, *Wood*, *Stone*, *Hyssop*, and *Rosemary* have an infinite Variety of hidden Mysteries contain'd in the Shape, Size, Motion and Position of the little Particles, of which they are compos'd; and, perhaps, also infinite unknown Properties and Powers, that may be deriv'd from them. And if we arise to

the *Animal* World, or the World of *Spirits*, our Knowledge of them must be amazingly imperfect, when there is not the least *Grain of Sand*, or *empty Space*, but has too many Questions and Difficulties belonging to it for the wisest Philosopher upon Earth to answer and resolve.

IV. Our Ideas are either *true* or *false*; for an Idea being the Representation of a thing in the Mind, it must be either a *true* or a *false Representation* of it. If the Idea be conformable to the Object or Archetype of it, it is a *true* Idea; if not, it is a *false* one. Sometimes our Ideas are referr'd to things really existing without us as their Archetypes. If I see Bodies *in their proper Colours* I have a *true* Idea: But when a Man under the Jaundice sees *all Bodies yellow*, he has a *false* Idea of them. So if we see the *Sun or Moon*, *rising or setting*, our Idea represents them *bigger* than when they are *on the Meridian:* And in this Sense it is a *false Idea*, because those heavenly Bodies are all Day, and all Night, of the same Bigness. Or when I see a *strait Staff appear crooked while it is half under the Water*; I say, the Water gives me a *false Idea* of it. Sometimes our Ideas refer to the Ideas of other Men denoted by such a particular Word, as their Archetypes: So when I hear a *Protestant* use the Words *Church* and *Sacraments*; if I understand by these Words, a *Congregation of faithful Men who profess Christianity*, and the two *Ordinances*, Baptism and the Lord's Supper, I have a *true* Idea of those Words in the common Sense of *Protestants:* But if the Man who speaks of them be a *Papist*, he means the *Church of Rome and the seven Sacraments*, and then I have a *mistaken Idea* of those Words, as spoken by him, for he has a different Sense and Meaning: And in general whensoever I mistake the Sense of any Speaker or Writer, I may be said to have *a false Idea* of it.

Some

Some think that *Truth*, or *Falshood* properly belongs only to *Propositions*, which shall be the Subject of Discourse in the second Part of *Logic*; for if we consider *Ideas* as mere Impressions upon the Mind, made by outward Objects, those Impressions will ever be conformable to the Laws of Nature in such a Case: The *Water* will make a *Stick* appear *crooked*, and the *horizontal Air* will make the *Sun* and *Moon* appear *bigger*. And generally where there is *Falshood* in *Ideas*, there seems to be some *secret* or *latent Proposition*, whereby we judge falsly of things: This is more obvious where we take up the Words of a Writer or Speaker in a mistaken Sense, for we join his Words to our own Ideas, which are different from his. But after all, since Ideas are Pictures of Things, it can never be very improper to pronounce them to be *true* or *false*, according to their *Conformity* or *Nonconformity* to their Exemplars.

CHAP. IV.

Of Words and their several Divisions, together with the Advantage and Danger of them.

SECT. I.

Of Words in general, and their Use.

THO' our Ideas are first acquir'd by the Perception of Objects, or by various *Sensations* and *Reflections*, yet we convey them to each other by the Means of certain Sounds, or written Marks, which we call *Words*; and a great Part of our Knowledge is both obtain'd and communicated by these Means, which are call'd *Speech* or *Language*.

But as we are led into the Knowledge of things by *Words*, ſo we are oftentimes led into Error, or Miſtake, by the Uſe or Abuſe of *Words* alſo. And in order to guard againſt ſuch Miſtakes, as well as to promote our Improvement in Knowledge, it is neceſſary to acquaint ourſelves a little with *Words* and *Terms*. We ſhall begin with theſe Obſervations.

Obſerv. 1. Words (whether they are ſpoken or written) have no natural Connection with the Ideas they are deſign'd to ſignify, nor with the things which are repreſented in thoſe Ideas. There is no manner of Affinity between the Sounds *white* in *Engliſh*, or *blanc* in *French*, and *that Colour* which we call by that Name; nor have the Letters, of which theſe Words are compos'd, any natural Aptneſs to ſignify that Colour rather than *red* or *green*. Words and Names therefore are mere *arbitrary Signs* invented by Men to communicate their Thoughts, or Ideas, to one another.

Obſerv. 2. If one ſingle Word were appointed to expreſs but one ſimple Idea, and nothing elſe, as *White*, *Black*, *Sweet*, *Sour*, *Sharp*, *Bitter*, *Extenſion*, *Duration*, there would be ſcarce any Miſtake about them.

But alas! It is a common Unhappineſs in Language, that different *ſimple Ideas* are ſometimes expreſs'd by the *ſame Word*; ſo the Words *ſweet* and *ſharp*, are applied both to the Objects of hearing and taſting, as we ſhall ſee hereafter; and this, perhaps, may be *one Cauſe* or Foundation of Obſcurity and Error ariſing from Words.

Obſerv. 3. In communicating our complex Ideas to one another, if we could join as many peculiar and appropriated Words together in one Sound, as we join ſimple Ideas to make one com-

plex one, we ſhould ſeldom be in Danger of miſtaking: When I expreſs the Taſte of an Apple, which we call the *Bitter-Sweet*, none can miſtake what I mean.

Yet this ſort of *Compoſition* would make all Language a moſt tedious and unweildy thing, ſince moſt of our Ideas are complex, and many of them have eight or ten ſimple Ideas in them; ſo that the Remedy would be worſe than the Diſeaſe; for what is now expreſs'd in one ſhort Word, as *Month*, or *Year*, would require two Lines to expreſs it. It is neceſſary, therefore, that *ſingle Words* be invented to expreſs *complex Ideas*, in order to make Language ſhort and uſeful.

But here is our great Infelicity, that when *ſingle Words* ſignify *complex Ideas*, one Word can never diſtinctly manifeſt all the Parts of a complex Idea, and thereby it will often happen, that one Man includes *more* or *leſs* in his Idea, than another does, while he affixes the *ſame* Word to it. In this Caſe there will be Danger of Miſtake between them, for they do not mean the *ſame Object*, tho' they uſe the *ſame Name*. So if one Perſon, or Nation, by the Word *Year* mean twelve Months of thirty Days each, *i. e.* three hundred and ſixty Days, another intend a *Solar Year* of three hundred ſixty five Days, and a third mean a *Lunar Year*, or twelve *Lunar Months*, *i. e.* three hundred fifty four Days, there will be a great Variation and Error in their Account of things, unleſs they are well appriz'd of each other's meaning beforehand. This is ſuppos'd to be the Reaſon, why ſome ancient *Hiſtories*, and *Propheſies*, and Accounts of *Chronology* are ſo hard to be adjuſted. And this is the true Reaſon of ſo furious and endleſs Debates on many Points

in Divinity; the Words *Church*, *Worſhip*, *Idolatry*, *Repentance*, *Faith*, *Election*, *Merit*, *Grace*, and many others which ſignify very *complex Ideas*, are not applied to include juſt the ſame ſimple Ideas, and the ſame Number of them, by the various contending Parties; thence ariſe Confuſion and Conteſt.

Obſerv. 4. Tho' a *ſingle Name* does not certainly manifeſt to us all the Parts of a *complex Idea*, yet it muſt be acknowledg'd, that in many of our *complex Ideas*, the ſingle Name may Point out to us ſome *chief Property* which belongs to the thing that the Word ſignifies; eſpecially when the Word, or Name, is trac'd up to its Original thro' ſeveral Languages from whence it is borrowed. So an *Apoſtle* ſignifies *one who is ſent forth.*

But this tracing of a Word to its Original (which is call'd *Etymology*) is ſometimes a very precarious and uncertain Thing: And after all, we have made but little Progreſs towards the Attainment of the full Meaning of a *complex Idea*, by knowing ſome one chief Property of it. We know but a ſmall Part of the Notion of an *Apoſtle*, by knowing barely that he is *ſent forth.*

Obſerv. 5. Many (if not moſt) of our Words which are applied to *moral* and *intellectual Ideas*, when traced up to their Original in the learned Languages, will be found to ſignify *ſenſible* and *corporeal* Things: Thus the Words *Apprehenſion*, *Underſtanding*, *Abſtraction*, *Invention*, *Idea*, *Inference*, *Prudence*, *Religion*, *Church*, *Adoration*, &c. have all a corporeal Signification in their Original. The Name *Spirit* itſelf ſignifies *Breath* or *Air*, in *Latin*, *Greek*, and *Hebrew:* Such is the Poverty of all Languages, they are forc'd to

uſe

use these Names for *incorporeal* Ideas, which thing has a tendency to Error and Confusion.

Obsery. 6. The last thing I shall mention that leads us into many a Mistake, is, the Multitude of Objects that one Name sometimes signifies: There is almost an infinite Variety of things and Ideas both simple and complex, beyond all the Words that are invented in any Language; thence it becomes almost necessary that one Name should signify several things. Let us but consider the two Colours of *Yellow* and *Blue*, if they are mingled together in any considerable Proportion they make a *Green:* Now there may be infinite Differences of the Proportions in the Mixture of *Yellow* and *Blue*; and yet we have only these three Words, *Yellow*, *Blue*, and *Green*, to signify all of them, at least by one single Term.

When I use the Word *Shore*, I may intend thereby a *Coast of Land near the Sea*, or a *Drain to carry off Water*, or a *Prop to support a Building*; and by the Sound of the Word *Porter*, who can tell whether I mean a *Man who bears Burdens*, or a *Servant who waits at a Nobleman's Gate?* The World is fruitful in the Invention of *Utensils* of Life, and new *Characters* and *Offices* of Men, yet *Names* entirely new are seldom invented; therefore old Names are almost necessarily us'd to signify new things, which may occasion much Confusion and Error in the receiving and communicating of Knowledge.

Give me leave to propose one single Instance, wherein all these Notes shall be remarkably exemplified. It is the Word *Bishop*, which in *French* is call'd *Evêque*; upon which I would make these several Observations. (1.) That there is no natural Connection between the sacred Office hereby signified, and the Letters or Sound

which signify this Office; for both these Words, *Evêque* and *Bishop* signify the same Office, tho' there is not one Letter alike in them; nor have the Letters which compose the *English* or the *French* Word any thing sacred belonging to them, more than the Letters that compose the Words *King* or *Soldier*. (2.) If the the Meaning of a Word could be learnt by its Derivation or Etymology, yet the original Derivation of Words is oftentimes very dark and unsearchable; for who would imagine that each of these Words are deriv'd from the *Latin Episcopus*, or the Greek Ἐπίσκοπος? Yet in this Instance we happen to know certainly the true Derivation; the *French* being anciently writ *Eveſque*, is borrow'd from the first Part of the *Latin* Word; and the old *English Biscop* from the middle of it. (3.) The original *Greek* Word signifies an *Overlooker*, or one who stands higher than his Fellows and overlooks them: It is a compound Word, that primarily signifies *sensible Ideas*, translated to signify or include several *moral* or *intellectual Ideas*; therefore all will grant, that the Nature of the Office can never be known by the mere Sound of the Word *Overlooker*. (4.) I add farther, the Word *Bishop*, or *Episcopus*, even when it is thus translated from a sensible Idea, to include several intellectual Ideas, may yet equally signify an *Overseer* of the Poor; an *Inspector* of the Customs; a *Surveyor* of the Highways; a *Supervisor* of the Excise, *&c.* but by the Consent of Men, and the Language of Scripture, it is appropriated to signify a *sacred Office in the Church*. (5.) This very Idea and Name, thus translated from things sensible, to signify a spiritual and sacred thing, contains but one Property of it, *(viz.) one that has an Oversight*, or *Care over others:* But it does not tell us, whether it includes a *Care*

a *Care over one Church*, or *many*; over the *Laity*, or the *Clergy*. (6.) Thence it follows, that those who in the complex Idea of the Word *Bishop* include an Oversight over the Clergy, or over a whole Diocese of People, a Superiority to Presbyters, a distinct Power of Ordination, *&c.* must necessarily disagree with those who include in it only the Care of a single Congregation. Thus according to the various Opinions of Men, this Word signifies a *Pope*, a *Gallican Bishop*, a *Lutheran Superintendent*, an *English Prelate*, a *Pastor of a single Assembly*, or a *Presbyter* or *Elder*. Thus they quarrel with each other perpetually; and it is well if any of them all have hit precisely the Sense of the sacred Writers, and included just the same Ideas in it, and no others.

I might make all the same Remarks on the Word *Church*, or *Kirk*, which is deriv'd from Κυριὰ οἰκῶ or *the House of the Lord*, contracted into *Kyrioik*, which some suppose to signify *an Assembly of Christians*, some take it for *all the World that professes Christianity*, and some make it to mean only *the Clergy*; and on these Accounts it has been the Occasion of as many and as furious Controversies as the Word *Bishop* which was mention'd before.

Sect. II.

Of negative and positive Terms.

FROM these and other Considerations it will follow, that if we would avoid Error in our Pursuit of Knowledge, we must take good heed to the Use of *Words* and *Terms*, and be acquainted with the various Kinds of them.

I. Terms are either *positive* or *negative*.

Negative

Negative Terms are such as have a little Word or Syllable of denying join'd to them, according to the various Idioms of every Languge, as *Unpleasant*, *Imprudent*, *Immortal*, *Irregular*, *Ignorant*, *Infinite*, *Endless*, *Lifeless*, *Deathless*, *Nonsense*, *Abyss*, *Anonymous*, where the Prepositions *Un*, *Im*, *In*, *Non*, *A*, *An*, and the Termination *less*, signify a Negation, either in *English*, *Latin*, or *Greek*.

Positive Terms are those which have no such negative Appendices belonging to them, as *Life*, *Death*, *End*, *Sense*, *Mortal*.

But so unhappily are our Words and Ideas link'd together, that we can never know which are *positive* Ideas and which are *negative*, by the Word that is used to express them, and that for these Reasons.

1st, There are some *positive Terms* which are made to signify a *negative Idea*; as *Dead* is properly a Thing that is depriv'd of *Life*; *Blind* implies a Negation or Privation of *Sight*; *Deaf* a Want of *Hearing*; *Dumb* a Denial of *Speech*.

2dly, There are also some *negative Terms*, which imply *positive Ideas*, such as *immortal* and *deathless*, which signify *ever-living*, or a Continuance in Life: *Insolent* signifies rude and haughty: *Indemnify* to keep safe; and *Infinite* perhaps has a *positive* Idea too, for it is an Idea ever growing; and when it is applied to *God* it signifies his *compleat Perfection*.

3dly, There are both *positive* and *negative* Terms, invented to signify the *same*, and *contrary* Ideas; as *Unhappy* and *Miserable*, *Sinless* and *Holy*, *Pure* and *Undefiled*, *Impure* and *Filthy*, *Unkind* and *Cruel*, *Irreligious* and *Profane*, *Unforgiving* and *Revengeful*, &c. and there is a great deal of Beauty and Convenience deriv'd to any Language from this Variety of Expression; tho' sometimes it a little

confounds our Conceptions of *Being* and *Not-Being*, our *positive* and *negative* Ideas.

4thly, I may add also, that there are some Words which are *negative* in their *original* Language, but seem *positive* to an *Englishman*, because the Negation is unknown; as *Abyss*, a Place without a Bottom; *Anodyne*, an easing Medicine; *Amnesty*, an Unremembrance or general Pardon; *Anarchy*, a State without Government; *Anonymous*, *i. e.* nameless; *Inept*, *i. e.* not fit; *Iniquity*, *i. e.* Unrighteousness; *Infant*, one that can't speak, (*viz.*) a Child; *Injurious*, not doing Justice or Right.

The Way therefore to know whether any Idea be *negative* or not, is, to consider whether it primarily imply the Absence of any positive Being, or Mode of Being; if it doth, then it is a *Negation* or *negative Idea*; otherwise it is a *positive* one, whether the Word that expresses it be positive or negative. Yet after all, in many Cases this is very hard to determine; as in *Amnesty*, *Infinite*, *Abyss*, which are originally negative Terms, but they signify *Pardon*, &c. which seem to be Positives. So *Darkness*, *Madness*, *Clown*, are positive Terms, but they imply the Want of *Light*, the Want of *Reason*, and the Want of *Manners*; and perhaps these may be rank'd among the negative Ideas.

Here note, that in the *English* Tongue *two negative* Terms are equal to *one positive*, and signify the same Thing, as, *not unhappy* signifies *happy*; *not immortal*, signifies *mortal*; he is *no imprudent Man*, i. e. he is a *Man of Prudence:* But the Sense and Force of the Word in such a negative Way of Expression, seems to be a little diminish'd.

Sect. III.

Of simple and complex Terms.

II. *TERMS* are divided into *simple* or *complex*. A *simple Term* is one Word, a *complex Term* is when more Words are used to signify one Thing.

Some Terms are *complex in Words, but not in Sense*, such is the *second Emperor of* Rome; for it excites in our Mind only the Idea of one Man (*viz.*) *Augustus*.

Some Terms are *complex in Sense, but not in Words*; so when I say an *Army*, a *Forest*, I mean a *Multitude of Men*, or *Trees*; and almost all our *moral* Ideas, as well as many of our *natural* ones, are express'd in this Manner; *Religion*, *Piety*, *Loyalty*, *Knavery*, *Theft*, include a Variety of Ideas in each Term.

There are other Terms which are *complex both in Words and Sense*; so when I say, a *fierce Dog*, or a *pious Man*, it excites an Idea, not only of those two Creatures, but of their peculiar Characters also.

Among the Terms that are *complex in Sense but not in Words*, we may reckon those simple Terms which contain a *primary* and a *secondary* Idea in them; as when I hear my Neighbour speak that which is not true, and I say to him *this is not true*, or *this is false*, I only convey to him the naked Idea of his Error; this is the *primary Idea:* But if I say *it is a Lye*, the Word *Lye* carries also a *secondary* Idea in it, for it implies both the Falshood of the Speech, and my Reproach and Censure of the Speaker. On the other hand, if I say *it is a Mistake*, this carries also a *secondary Idea* with it;

it; for it not only refers to the Falshood of his Speech, but it includes my Tenderness and Civility to him at the same Time. Another Instance may be this; when I use the Word *Incest*, *Adultery*, and *Murder*, I convey to another not only the *primary Idea* of those Actions, but I include also the *secondary Idea* of their Unlawfulness, and my Abhorrence of them.

Note, 1st, Hence it comes to pass, that among Words which signify the same *principal* Ideas, some are *clean* and *decent*, others *unclean*; some *chaste*, others *obscene*; some are *kind*, others are *affronting* and *reproachful*, because of the *secondary* Idea which Custom has affix'd to them. And it is the Part of a wise Man, when there is a Necessity of expressing any *evil Actions*, to do it either by a Word that has a secondary Idea of *Kindness*, or *Softness*; or a Word that carries in it an Idea of *Rebuke* and *Severity*, according as the Case requires: So when there is a Necessity of expressing things *unclean* or *obscene*, a wise Man will do it in the most *decent* Language, to excite as few uncleanly Ideas as possible in the Minds of the Hearers.

Note, 2d, in Length of Time, and by the Power of Custom, Words sometimes change their *primary Ideas*, as shall be declar'd, and sometimes they have chang'd their *secondary Ideas*, tho' the *primary Ideas* may remain: So Words that were once *chaste*, by frequent Use grow *obscene* and *uncleanly*; and Words that were once *honourable*, may in the next Generation grow *mean* and *contemptible*. So the Word *Dame* originally signified a Mistress of a Family, who was a *Lady*, and it is used still in the *English* Law to signify a *Lady*; but in common Use now-a-days it represents a *Farmer's Wife*, or a *Mistress of a Family*

of

of the lower Rank in the Country. So thoſe Words of *Rabſhakeh*, Iſa. xxxvi. 12. in our Tranſlation, (*Eat their own Dung*, &c.) were doubtleſs decent and clean Language, when our Tranſlators wrote them above a hundred Years ago. The Word *Dung* has maintain'd its old ſecondary Idea and inoffenſive Senſe to this Day; but the *other Word* in that Sentence has by Cuſtom acquired a more uncleanly Idea, and ſhould now rather be chang'd into a more decent Term, and ſo it ſhould be read in publick, unleſs it ſhould be thought more proper to omit the Sentence *.

For this Reaſon it is, that the *Jewiſh Rabbins* have ſupplied other chaſte Words in the Margin of the *Hebrew* Bible, where the Words of the Text, thro' Time and Cuſtom, are degenerated, ſo as to carry any baſe and *unclean ſecondary Idea* in them; and they read the Word which is in the Margin, which they call *Keri*, and not that which was written in the Text, which they call *Chetib.*

Sect. IV.

Of Words common and proper.

III. *WORDS* and *Names* are either *common* or *proper*. *Common Names* are ſuch as ſtand for univerſal Ideas, or a whole Rank of Beings, whether general or ſpecial. Theſe are call'd *Appellatives*; ſo *Fiſh*, *Bird*, *Man*, *City*, *River*, are common Names; and ſo are *Trout*, *Eel*, *Lobſter*, for they all agree to many *Individuals*, and ſome of them to many *Species:* But *Cicero*, *Virgil*, *Buce-*

* So in ſome Places of the ſacred Hiſtorians, where it is written, *Every one that piſſeth againſt the Wall*, we ſhould read *Every Male.*

phalus,

phalus, *London*, *Rome*, *Ætna*, the *Thames*, are proper Names, for each of them agrees only to one *single* Being.

Note here *first*, that a *proper* Name may become in some Sense *common*, when it hath been given to several Beings of the same Kind; so *Cæsar*, which was the proper Name of the first Emperor *Julius*, became also a common Name to all the following Emperors. And *Tea*, which was the proper Name of one sort of *Indian* Leaf, is now-a-days become a common Name for many Infusions of Herbs, or Plants, in *Water*; as *Sage-Tea*, *Alehoof-Tea*, *Limon-Tea*, &c. So *Peter*, *Thomas*, *John*, *William*, may be reckon'd common Names also, because they are given to many Persons, unless they are determin'd to signify a single Person at any particular Time, or Place.

Note in the *second* Place, that a *common* Name may become *proper* by Custom, or by the Time, or Place, or Persons that use it; as in *Great Britain*, when we say *the King*, we mean our present rightful Sovereign *King George*, who now reigns; when we speak of the *Prince*, we intend his Royal Highness *George Prince of Wales:* If we mention the *City* when we are near *London*, we generally mean the *City of London*; when in a Country Town, we say the *Parson* or the *Esquire*, all the Parish knows who are the single Persons intended by it; so when we are speaking of the History of the New Testament, and use the Words *Peter*, *Paul*, *John*, we mean those three Apostles.

Note in the *third* Place, that any *common* Name whatsoever is made *proper*, by Terms of Particularity added to it, as the common Words *Pope*, *King*, *Horse*, *Garden*, *Book*, *Knife*, &c. are design'd to signify a singular Idea, when we say the

the *preſent Pope*; *the King of Great Britain*; *the Horſe that won the laſt Plate at New-Market*; *the Royal Garden at Kenſington*; *this Book*; *that Knife*, &c.

Sect. V.

Of concrete and abſtract Terms.

IV. WORDS or Terms are divided into *abſtract* and *concrete*.

Abſtract Terms ſignify the Mode or Quality of a Being, without any Regard to the Subject in which it is; as *Whiteneſs*, *Roundneſs*, *Length*, *Breadth*, *Wiſdom*, *Mortality*, *Life*, *Death*.

Concrete Terms, while they expreſs the Quality, do alſo either expreſs, or imply, or refer to ſome Subject to which it belongs; as *white*, *round*, *long*, *broad*, *wiſe*, *mortal*, *living*, *dead*. But theſe are not always *Noun Adjectives* in a grammatical Senſe; for a *Fool*, a *Knave*, a *Philoſopher*, and many other Concretes are *Subſtantives*, as well as *Knavery*, *Folly*, and *Philoſophy*, which are the abſtract Terms that belong to them.

Sect. VI.

Of univocal and equivocal Words.

V. WORDS and *Terms* are either *univocal* or *equivocal*. *Univocal* Words are ſuch as ſignify but one Idea, or at leaſt but one ſort of Thing; *equivocal* Words are ſuch as ſignify two or more different Ideas, or different ſorts of Objects. The Words *Book*, *Bible*, *Fiſh*, *Houſe*, *Elephant*, may be called *univocal* Words; for I know

know not that they signify any thing else but those Ideas to which they are generally affixt; but *Head* is an equivocal Word, for it signifies the Head of a *Nail*, or a *Pin*, as well as of an *Animal: Nail* is an equivocal Word, it is used for the *Nail of the Hand* or *Foot*, and for an *iron Nail* to fasten any thing. *Post* is equivocal, it is a *Piece of Timber*, or a *swift Messenger*. A *Church* is a *religious Assembly*, or the *large fair Building* where they meet; and sometimes the same Word means a *Synod of Bishops*, or of *Presbyters*, and in some Places it is the *Pope and a general Council*.

Here let it be noted, that when two or more Words signify the same Thing, as *Wave* and *Billow*, *Mead* and *Meadow*, they are usually called *synonymous* Words: But it seems very strange, that Words which are directly contrary to each other, should sometimes represent almost the same Ideas; yet thus it is in some few Instances; a *valuable*, or an *invaluable* Blessing; a *shameful*, or a *shameless* Villian; a *thick Skull*, or a *thin skulled* Fellow, a mere *Paper Skull*; a Man of a *large Conscience*, *little Conscience*, or no *Conscience*; a *famous Rascal*, or an *infamous* one: So uncertain a Thing is human Language, whose Foundation and Support is *Custom*.

As Words signifying the same Thing are call'd *synonymous*; so *equivocal* Words, or those which signify several Things, are call'd *homonymous*, or *ambiguous*; and when Persons use such ambiguous Words, with a Design to deceive, it is call'd *Equivocation*.

Our *simple Ideas*, and especally the *sensible Qualities*, furnish us with a great Variety of *equivocal*, or *ambiguous Words*; for these being the first, and most natural Ideas we have, we borrow some

of their Names, to ſignify many other Ideas, both ſimple and complex. The Word *Sweet* expreſſes the pleaſant Perceptions of almoſt every Senſe; *Sugar* is ſweet, but it hath not the ſame Sweetneſs as *Muſick*; nor hath Muſick the Sweetneſs of a *Roſe*; and a ſweet *Proſpect* differs from them all: Nor yet have any of theſe the ſame Sweetneſs as *Diſcourſe*, *Counſel*, or *Meditation* hath; yet the royal *Pſalmiſt* ſaith of a Man, *We took ſweet Counſel together*; and of God, *My Meditation of him ſhall be ſweet*. *Bitter* is alſo ſuch an equivocal Word; there is bitter *Wormwood*, there are bitter *Words*, there are bitter *Enemies*, and a bitter *cold Morning*. So there is a Sharpneſs in *Vinegar*, and there is a Sharpneſs in *Pain*, in *Sorrow*, and in *Reproach*; there is a ſharp *Eye*, a ſharp *Wit*, and a ſharp *Sword:* But there is not one of theſe ſeven *Sharpneſſes*, the ſame as another of them, and a ſharp *Eaſt Wind* is different from them all.

There are alſo *Verbs*, or Words of Action, which are equivocal as well as *Nouns*, or *Names*. The Words to *bear*, to *take*, to *come*, to *get*, are ſufficient Inſtances of it; as when we ſay, to bear *a Burden*, to bear *Sorrow* or *Reproach*, to bear *a Name*, to bear *a Grudge*, to bear *Fruit*, or to bear *Children*; the Word *bear* is uſed in very different Senſes. And ſo is the Word *get*, when we ſay, to get *Money*, to get *in*, to get *off*, to get *ready*; to get a *Stomach*, and to get a *Cold*, &c.

There is alſo a great deal of Ambiguity in many of the *Engliſh Particles*, as, *but*, *before*, *beſide*, *with*, *without*, *that*, *then*, *there*, *for*, *forth*, *above*, *about*, &c. of which Grammars and Dictionaries will ſufficiently inform us.

SECT.

Sect. VII.

Various Kinds of equivocal Words.

IT would be endless to run through all the Varieties of Words, and Terms, which have different Senses applied to them; I shall only mention, therefore, a few of the most remarkable and most useful *Distinctions* among them.

1st, The first *Division* of equivocal Words lets us know that some are equivocal *only in their Sound or Pronounciation*; others are equivocal *only in Writing*; and others, *both in Writing, and in Sound.*

Words equivocal *in Sound only*, are such as these; the *Rein* of a Bridle, which hath the same Sound with the *Reign* of a King or a Shower of *Rain*, but all three have different Letters, and distinct Spelling. So *Might*, or Strength, is equivocal in Sound, but differs in Writing from *Mite*, a little Animal, or a small Piece of Money. And the Verb to *write*, has the same Sound with *Wright* a Workman, *Right* or Equity, and *Rite* or Ceremony; but it is spelled very differently from them all.

Words equivocal *in Writing only*, are such as these; to *tear* in Pieces, has the same Spelling with a *Tear:* To *lead*, or guide, has the same Letters as *Lead* the Metal: And a *Bowl* for Recreation is written the same Way as a *Bowl* for drinking, but the Pronunciation of all these is different.

But those Words which are most commonly and justly call'd *equivocal*, are such as are both written and pronounc'd the same Way, and yet have different Senses or Ideas belonging to them;

ſuch are all the Inſtances which were given in the preceding Section.

Among the Words which are equivocal in *Sound only*, and *not in Writing*, there is a large Field for Perſons who delight in *Jeſts* and *Puns*, in *Riddles* and *Quibbles*, to ſport themſelves. This ſort of Words is alſo uſed by wanton Perſons, to convey *lewd Ideas*, under the Covert of *Expreſſions* capable of a chaſte Meaning, which are called *double Entendres*; or when Perſons ſpeak *Falſhood* with a Deſign to deceive, under the Covert of *Truth*. Tho' it muſt be confeſt, that all ſorts of equivocal Words yield ſufficient Matter for ſuch Purpoſes.

There are many Caſes alſo, wherein an equivocal Word is us'd for the ſake of *Decency* to cover a *foul Idea:* For the moſt chaſte and modeſt, and well-bred Perſons, having ſometimes a Neceſſity to ſpeak of the Things of Nature, convey their Ideas in the moſt inoffenſive Language by this Means. And indeed, the mere Poverty of all Languages makes it neceſſary to uſe *equivocal Words* upon many Occaſions, as the common Writings of Men, and even the holy Book of God ſufficiently manifeſt.

2dly, Equivocal Words are uſually diſtinguiſhed, according to their *Original*, into ſuch, whoſe various Senſes ariſe from *mere Chance* or *Accident*, and ſuch as are made equivocal by *Deſign*; as the Word *Bear* ſignifies a *ſhaggy Beaſt*, and it ſignifies alſo to *bear or carry a Burden*; this ſeems to be the mere effect of *Chance:* But if I call my Dog, *Bear*, becauſe he is ſhaggy, or call one of the *Northern Conſtellations* by that Name, from a fancied Situation of the Stars in the Shape of that Animal, then it is by *Deſign* that the Word is made yet farther equivocal.

But because I think this common Account of the Spring or Origin of equivocal Words is too slight and imperfect, I shall reserve this Subject to be treated of by itself, and proceed to the *third Division.*

3dly, Ambiguous or equivocal Words, are such as are sometimes taken in a *large and general Sense*, and sometimes in a Sense *more strict and limited*, and have different Ideas affix'd to them accordingly. *Religion* or *Virtue*, taken in a large Sense, includes both our *Duty to God and our Neighbour*; but in a more strict, limited, and proper Sense, *Virtue* signifies our *Duty towards Men*, and *Religion* our *Duty to God*. *Virtue* may yet be taken in the strictest Sense, and then it signifies *Power* or *Courage*, which is the Sense of it in some Places of the New Testament. So *Grace*, taken in a large Sense, means the *Favour of God*, and all the spiritual Blessings that proceed from it (which is a frequent Sense of it in the Bible) but in a limited Sense it signifies *the Habit of Holiness* wrought in us by Divine Favour, or a *complex Idea of the Christian Virtues*. It may be also taken in the strictest Sense; and thus it signifies any *single Christian Virtue*, as in 2 *Cor.* viii. 6, 7. where it is us'd for *Liberality*. So a *City*, in a strict and proper Sense, means the *Houses inclosed within the Walls*; in a larger Sense it reaches to all the *Suburbs*.

This *larger* and *stricter* Sense of a Word is us'd in almost all the Sciences, as well as in Theology, and in common Life. The Word *Geography*, taken in a *strict Sense*, signifies the Knowledge of the Circles of the earthly Globe, and the Situation of the various Parts of the Earth; when it is taken in *a little larger Sense*, it includes the Knowledge of the Seas also; and in the *largest Sense* of

all, it extends to the various Cuſtoms, Habits, and Governments of Nations. When an Aſtronomer uſes the Word *Star* in its proper and ſtrict Senſe, it is applied only to the *fixed Stars*, but in a large Senſe it includes the *Planets* alſo.

This equivocal Senſe of Words belongs alſo to many proper Names: So *Aſia* taken in the largeſt Senſe is one quarter of the World; in a more limited Senſe it ſignifies *Natolia*, or the leſſer *Aſia*; but in the ſtricteſt Senſe it means no more than one little Province of *Natolia*, where ſtood the Cities of *Epheſus*, *Smyrna*, *Sardis*, &c. and this is the moſt frequent Senſe of it in the New Teſtament. *Flanders* and *Holland*, in a ſtrict Senſe, are but two ſingle Provinces among the ſeventeen; but in a large Senſe *Holland* inculdes ſeven of them, and *Flanders* ten.

There are alſo ſome very common and little Words in all Languages, that are us'd in a more *extenſive* or more *limited* Senſe; ſuch as *all*, *every*, *whoſoever*, &c. When the Apoſtle ſays, *all Men have ſinned*, and *all Men muſt die*, *all* is taken in its moſt univerſal and extenſive Senſe, including *all Mankind*, Rom. v. 12. When he appoints *Prayer to be made for all Men*, it appears by the following Verſes, that he reſtrains the Word *all* to ſignify chiefly *all Ranks and Degrees of Men*, 1 Tim. ii. 1. But when St. *Paul* ſays, *I pleaſe all Men in all things*, 1 Cor. x. 33. the Word *all* is exceedingly limited, for it reaches no farther than that he pleas'd *all* thoſe Men *whom he convers'd with*, in *all* things that were *lawful*.

4thly, Equivocal Words are in the fourth Place diſtinguiſh'd by their *literal* or *figurative* Senſe. Words are us'd in a *proper* or *literal* Senſe, when they are deſign'd to ſignify thoſe Ideas for which they were originally made, or to which they are

primarily and generally annexed; but they are us'd in a *figurative* or *tropical* Sense, when they are made to signify some things, which only bear either a *Reference* or a *Resemblance* to the primary Ideas of them. So when two *Princes* contend by their Armies, we say they are at *War* in a proper Sense; but when we say there is a *War* betwixt the *Winds* and the *Waves* in a Storm, this is call'd *Figurative*, and the peculiar Figure is a *Metaphor*. So when the Scripture says, *Riches make themselves Wings, and fly away as an Eagle toward Heaven*, the *Wings* and the *Flight* of the Eagle *are proper* Expressions; but when *Flight* and *Wings* are applied to *Riches*, it is only by Way of *Figure* and *Metaphor*. So when Man is said to *repent*, or *laugh*, or *grieve*, it is literally taken; but when God is said to *be grieved*, to *repent*, to *laugh*, &c. these are all figurative Expressions, borrow'd from a Resemblance to Mankind. And when the Words *Job* or *Esther* are us'd to signify those very Persons, it is the *literal* Sense of them; but when they signify those two Books of Scripture, this is a *figurative* Sense. The Names of *Horace*, *Juvenal*, and *Milton*, are us'd in the same manner, either for *Books* or *Men*.

When a Word, which originally signifies any particular Idea or Object, is attributed to several other Objects, not so much by way of *Resemblance*, but rather on the Account of some evident *Reference* or *Relation* to the original Idea, this is sometimes peculiarly call'd an *analogical* Word; so a *sound* or *healthy Purse*; a *sound Digestion*; *sound Sleep*, are all so call'd, with *Reference* to a *sound* and *healthy* Constitution; but if you speak of *sound Doctrine*, or *sound Speech*, this is by way of *Resemblance* to Health, and the

Words are *metaphorical:* Yet many Times *Analogy* and *Metaphor* are us'd promiſcuouſly in the ſame Senſe, and not diſtinguiſh'd.

Here *note*, That the Deſign of *metaphorical Language* and *Figures of Speech* is not merely to repreſent our Ideas, but to repreſent them with Vivacity, Spirit, Affection, and Power; and tho' they often make a deeper Impreſſion on the Mind of the Hearer, yet they do as often lead him into a Miſtake, if they are us'd at improper Times and Places. Therefore, where the Deſign of the Speaker or Writer is merely to *explain*, to *inſtruct*, and to lead into the Knowledge of naked Truth, he ought, for the moſt part, to uſe *plain* and *proper* Words, if the Language affords them, and not to deal much in *figurative Speech*. But this ſort of Terms is us'd very profitably by *Poets* and *Orators*, whoſe Buſineſs is to move, and perſuade, and work on the Paſſions, as well as on the Underſtanding. Figures are alſo happily employed in proverbial *moral Sayings* by the *wiſeſt* and the *beſt* of Men, to impreſs them deeper on the Memory by *ſenſible Images*; and they are often us'd for other valuable Purpoſes in the *ſacred Writings*.

5thly, I might adjoin another *ſort of equivocal Words*; as there are ſome which have a different Meaning in *common Language*, from what they have in the *Sciences*; the Word *Paſſion* ſignifies the *receiving any Action* in a large philoſophical Senſe; in a more limited philoſophical Senſe, it ſignifies *any of the Affections of human Nature*, as *Love*, *Fear*, *Joy*, *Sorrow*, &c. But the *common* People confine it only to *Anger*. So the Word *Simple* philoſophically ſignifies *Single*, but vulgarly it is us'd for *Fooliſh*.

6thly,

6thly, Other equivocal Words are us'd sometimes in an *absolute* Sense, as when God is call'd *perfect*, which allows of no Defect; and sometimes in a *comparative* Sense, as good Men are oftentimes call'd *perfect* in Scripture, in Comparison of those who are much inferior to them in Knowledge or Holiness: But I have dwelt rather too long upon this Subject already, therefore I add no more.

Sect. VIII.

The Origin or Causes of equivocal Words.

NOW, that we may become more skilful in guarding ourselves and others against the Dangers of Mistake which may arise from *equivocal* Words, it may not be amiss to conclude this Chapter with a short Account of the various Ways or Means whereby a Word changes its Signification, or acquires any new Sense, and thus becomes *equivocal*, especially if it keeps its old Sense also.

1. *Mere Chance* sometimes gives the same Word different Senses; as the Word *Light* signifies a *Body that is not heavy*; and it also signifies the *Effect of Sun-Beams*, or the *Medium whereby we see Objects:* This is merely accidental, for there seems to be no Connection between these two Senses, nor any Reason for them.

2. *Error* and *Mistake* is another Occasion of giving various Senses to the same Word; as when different Persons read the Names of *Priest*, *Bishop*, *Church*, *Easter*, &c. in the New Testament, they affix different Ideas to them, for want of Acquaintance with the true Meaning of the sacred Writer; tho' it must be confess'd, these various

rious Senſes, which might ariſe at firſt from honeſt Miſtake may be culpably ſupported and propagated by *Intereſt*, *Ambition*, *Prejudice*, and a *Party-Spirit* on any Side.

3. *Time and Cuſtom* alters the Meaning of Words. *Knave* heretofore ſignified a *diligent Servant* (*Gnavus*;) and a *Villain* was a *meaner Tenant* to *the Lord of the Manor* (*Villicus*;) but now both thoſe Words carry an Idea of Wickedneſs and Reproach in them. A *Ballad* once ſignified a ſolemn and ſacred Song, as well as one that is trivial, when *Solomon*'s *Song* was call'd the *Ballad of Ballads*; but now it is applied to nothing but trifling Verſe, or comical Subjects.

4. Words change their Senſe by *Figures* and *Metaphors*, which are deriv'd from ſome *real Analogy* or *Reſemblance* between ſeveral things; as when *Wings* and *Flight* are applied to *Riches*, it ſignifies only, that the Owner may as eaſily loſe them, as he would loſe a Bird who flew away with Wings.

And I think, under this Head, we may rank thoſe Words, which ſignify different Ideas, by a ſort of an unaccountable far-fetcht *Analogy*, or diſtant *Reſemblance*, that Fancy has introduced between one thing and another; as when we ſay, the *Meat* is *green* when it is *half-roaſted:* We ſpeak of *airing Linen by the Fire*, when we mean *drying* or *warming* it: We call for *round Coals* for the Chimney, when we mean *large ſquare ones:* And we talk of the *Wing of a Rabbit*, when we mean the *Fore-Leg:* The true Reaſon of theſe Appellations we leave to the Criticks.

5. Words alſo change their Senſe by the *ſpecial Occaſion* of uſing them, the *peculiar manner* of *Pronunciation*, the *Sound of the Voice*, the *Motion of the Face*, or *Geſtures of the Body*; ſo when an angry

angry Master says to his Servant, *it is bravely done*, or *you are a fine Gentleman*, he means just the contrary; namely *it is very ill done*; *you are a sorry fellow:* It is one way of giving a severe Reproach, for the Words are spoken by way of *Sarcasm* or *Irony.*

6. Words are applied to various Senses, by *new Ideas* appearing or arising faster than *new Words* are framed. So when *Gun-Powder* was found out, the Word *Powder*, which before signified only *Dust*, was made then to signify that *Mixture* or *Composition of Nitre*, *Charcoal*, &c. and the Name *Canon*, which before signified a *Law* or a *Rule*, is now also given to a *great Gun*, which gives Laws to Nations. So Footboys, who had frequently the common Name of *Jack* given them, were kept to turn the Spit, or to pull off their Master's Boots; but when Instruments were invented for both those Services, they were both call'd *Jacks*, tho' one was of Iron, the other of Wood, and very different in their Form.

7. Words alter their Significations according to the *Ideas of the various Persons*, *Sects*, *or Parties* who use them, as we have hinted before; so when a *Papist* uses the Word *Hereticks* he generally means the *Protestants*; when a *Protestant* uses the Word, he means any *Persons who were willfully* (and perhaps contentiously) *obstinate in fundamental Errors.* When a *Jew* speaks of the *true Religion*, he means the *Institutions of Moses*; when a *Turk* mentions it he intends the *Doctrine of Mahomet*; but when a *Christian* makes use of it, he designs to signify *Christianity*, or the *Truths and Precepts of the Gospel.*

8. Words have different Significations according to the *Book*, *Writing*, or *Discourse* in which they stand. So in a Treatise of *Anatomy*, a *Foot* signifies

ſignifies that *Member in the Body of Man:* But in a Book of *Geometry* or Menſuration it ſignifies *twelve Inches.*

If I had Room to exemplify moſt of theſe Particulars in one ſingle Word, I know not where to chuſe a fitter than the Word *Sound*, which ſeems (as it were) by *Chance*, to ſignify three diſtinct Ideas, (*viz.*) *Healthy*, (from *Sanus*) as a ſound *Body*; *Noiſe* (from *Sonus*) as a *ſhrill* Sound; and to ſound the *Sea* (perhaps from the *French Sonde*, a Probe, or an Inſtrument to find the Depth of Water.) From theſe three, which I may call *original Senſes*, various *derivative Senſes* ariſe; as ſound *Sleep*, ſound *Lungs*, ſound *Wind* and *Limb*, a ſound *Heart*, a ſound *Mind*, ſound *Doctrine*, a ſound *Divine*, ſound *Reaſon*, a ſound *Caſk*, ſound *Timber*, a ſound *Reproof*, to *beat one* ſoundly, to ſound one's *Meaning* or *Inclination*, and a ſound or narrow *Sea*, turn theſe all into *Latin*, and the Variety will appear plain.

I confeſs, ſome few of theſe which I have mention'd, as the different Springs of equivocal Words, may be reduced in ſome Caſes to the ſame Original: But it muſt alſo be granted, that there may be other Ways beſide theſe whereby a Word comes to extend its Signification, to include various Ideas, and become *equivocal.* And tho' it is the Buſineſs of a *Grammarian* to purſue theſe Remarks with more Variety and Particularity, yet it is alſo the Work of a *Logician* to give Notice of theſe Things, leſt Darkneſs, Confuſion, and Perplexity be brought into our Conceptions by the Means of Words, and thence our *Judgments* and *Reaſonings* become erroneous.

CHAP.

CHAP. V.

General Directions relating to our Ideas.

Direction I. *Furnish yourselves with a rich Variety of Ideas*; acquaint yourselves with things ancient and modern; things natural, civil and religious; things domestick and national; things of your native Land, and of foreign Countries; things present, past and future; and above all, be well acquainted with God and yourselves; learn animal Nature, and the Workings of your own Spirits.

Such a general Acquaintance with things will be of very great Advantage.

The *first Benefit* of it is this; it will assist the Use of Reason in all its following Operations; it will teach you to *judge* of things *aright*, to *argue justly*, and to *methodise* your Thoughts with *Accuracy*. When you shall find several things akin to each other, and several different from each other, agreeing in some Part of their Idea, and disagreeing in other Parts, you will range your Ideas in better order, you will be more easily led into a distinct Knowledge of things, and will obtain a rich Store of proper Thoughts and Arguments upon all Occasions.

You will tell me perhaps that you design the Study of the *Law* or *Divinity*; and what Good can natural *Philosophy* or *Mathematicks* do you, or any other Science, not directly subordinate to your chief Design? But let it be consider'd, that all Sciences have a sort of mutual Connection; and Knowledge of all Kinds fits the Mind to reason and judge better concerning any particular Subject.

ject. I have known a *Judge* upon the Bench betray his Ignorance, and appear a little confus'd in his Sentiments about a Case of suspected Murder brought before him for want of some Acquaintance with *animal Nature* and *Philosophy*.

Another Benefit of it is this; such a large and general Acquaintance with things will secure you from *perpetual Admirations* and *Surprises*, and guard you against that Weakness of ignorant Persons, who have never seen any thing beyond the Confines of their own Dwelling, and therefore they wonder at almost every thing they see; every thing beyond the Smoke of their own Chimney, and the Reach of their own Windows, is new and strange to them.

A *third Benefit* of such an universal Acquaintance with things, is this; it will keep you from being too positive and *dogmatical*, from an Excess of *Credulity* and *Unbelief*, *i. e.* a Readiness to believe, or to deny every thing at first hearing; when you shall have often seen, that strange and uncommon things, which once seem'd incredible, are found to be true; and things very commonly receiv'd have been found false.

The *Way of attaining such an extensive Treasure of Ideas*, is, with Diligence to apply yourself to read the best Books; converse with the most knowing and the wisest of Men, and endeavour to improve by every Person in whose Company you are; suffer no Hour to pass away in a lazy Idleness, an impertinent Chattering or useless Trifles: Visit other Cities and Countries when you have seen your own, under the Care of one who can teach you to Profit by Travelling, and to make wise Observations; indulge a just Curiosity in seeing the Wonders of Art and Nature; search into things yourselves, as well as learn them

them from others; be acquainted with Men as well as Books; learn all things as much as you can at first Hand; and let as many of your Ideas as possible be the Representations of things, and not merely the Representations of other Mens Ideas: Thus your Soul, like some noble Building, shall be richly furnish'd with original Paintings, and not with mere Copies.

Direct. II. *Use the most proper Methods to retain that Treasure of Ideas which you have acquired*; for the Mind is ready to let many of them slip, unless some Pains and Labour be taken to fix them upon the Memory.

And more especially let those Ideas be laid up and preserv'd with the greatest Care, which are most directly suited, either to your *eternal Welfare* as a *Christian*, or to your *particular Station* and *Profession* in this Life; for tho' the former Rule recommends an universal Acquaintance with Things, yet it is but a more general and superficial Knowledge that is requir'd or expected of any Man, in things which are utterly foreign to his own Business; but it is necessary you should have a more particular and accurate Acquaintance with those things that refer to your peculiar Province and Duty in this Life, or your Happiness in another.

There are some Persons who never arrive at any deep, solid, or valuable Knowledge in any Science or any Business of Life, because they are perpetually fluttering over the Surface of things in a curious and wandring Search of infinite Variety; ever hearing, reading, or asking after something new, but impatient of any Labour to lay up and preserve the Ideas they have gained: Their Souls may be compar'd to a *Looking-Glass*, that

that whereſoever you turn it, it receives the Images of all Objects, but retains none.

In order to preſerve your Treaſure of Ideas and the Knowledge you have gain'd, purſue theſe Advices eſpecially in your younger Years.

1. *Recollect every Day the things you have ſeen, or heard, or read*, which may have made any Addition to your Underſtanding: Read the Writings of God and Men with Diligence and perpetual Reviews: Be not fond of haſtning to a new Book, or a new Chapter, till you have well fix'd and eſtabliſh'd in your Minds what was uſeful in the laſt: Make uſe of your Memory in this manner, and you will ſenſibly experience a gradual Improvement of it, while you take Care not to load it to exceſs.

2. *Talk over the things which you have ſeen, heard or learnt with ſome proper Acquaintance*; this will make a freſh Impreſſion upon your Memory; and if you have no fellow Student at hand, none of equal Rank with yourſelves, tell it over to any of your Acquaintance, where you can do it with Propriety and Decency; and whether they learn any thing by it or no, your own Repetition of it will be an Improvement to yourſelf: And this Practice alſo will furniſh you with a *Variety of Words* and copious Language, to expreſs your Thoughts upon all Occaſions.

3. Commit to writing ſome of the moſt conſiderable Improvements which you daily make, at leaſt ſuch Hints as may recall them again to your Mind, when perhaps they are vaniſh'd and loſt. And here I think Mr. *Locke*'s Method of *Adverſaria* or *common Places*, which he deſcribes in the End of the firſt Volume of his *poſthumous Works*, is the beſt; uſing no learned Method at all, ſetting down things as they occur, leaving a diſtinct

tinct Page for each Subject, and making an Index to the Pages.

At the End of every Week, or Month, or Year you may review your Remarks for these Reasons: *First*, *to judge of your own Improvement*, when you shall find that many of your younger Collections are either weak and trifling; or if they are just and proper, yet they are grown now so familiar to you, that you will thereby see your own Advancement in Knowledge. And in the *next* Place what Remarks you find there worthy of your riper Observation, you may *note them with a marginal Star*, instead of transcribing them, as being worthy of your second Year's Review, when the others are neglected.

To shorten something of this Labour, if the Books which you read are your own, mark with a Pen, or Pencil, the most considerable things in them which you desire to remember. Thus you may read that Book the second Time over with half the Trouble, by your Eye running over the Paragraphs which your Pencil has noted. It is but a very weak Objection against this Practice to say, *I shall spoil my Book*; for I persuade myself that you did not buy it as a *Bookseller* to sell it again for Gain, but as a *Scholar* to improve your Mind by it; and if the Mind be improv'd, your Advantage is abundant, though your Book yield less Money to your Executors.

Note, This Advice of *Writing*, *Marking*, and *Reviewing* your Marks, refers chiefly to those *occasional Notions* you meet with either in Reading or in Conversation: But when you are *directly* and *professedly* pursuing any Subject or Knowledge in a good System in your younger Years, the *System* it self is your *Common-Place Book*, and must be entirely review'd. The same may be said concerning any *Treatise* which closely, succinctly and accurately handles any particular Theme.

Direct. III. *As you proceed both in Learning and in Life, make a wise Observation what are the Ideas, what the Discourses and the Parts of Knowledge that have been more or less useful to yourself or others.* In our younger Years, while we are furnishing our Minds with a Treasure of Ideas, our Experience is but small, and our Judgment weak; it is therefore impossible at that Age to determine aright concerning the *real Advantage* and *Usefulness* of many things we learn. But when Age and Experience have matur'd your Judgment, then you will gradually drop the more *useless Part* of your younger Furniture, and be more sollicitous to retain that which is most necessary for your Welfare in this Life, or a better. Hereby you will come to make the same Complaint that almost every learned Man has done after long Experience in Study, and in the Affairs of human Life and Religion; *Alas! how many Hours, and Days, and Months, have I lost in pursuing some Parts of Learning, and in reading some Authors, which have turned to no other Account, but to inform me, that they were not worth my Labour and Pursuit!* Happy the Man who has a wise Tutor to conduct him through all the Sciences in the first Years of his Study; and who has a prudent Friend always at Hand to point out to him from Experience how much of every Science is worth his Pursuit! And happy the Student that is so wise as to follow such Advice!

Direct. IV. *Learn to acquire a Government over your Ideas and your Thoughts, that they may come when they are called, and depart when they are bidden.* There are some Thoughts that rise and intrude upon us while we shun them; there are

others

others that fly from us, when we would hold and fix them.

If the *Ideas* which you would willingly make the Matter of your present Meditation *are ready to fly from you*, you must be obstinate in the Pursuit of them by an Habit of fixed Meditation; you must keep your Soul to the Work, when it is ready to start aside every Moment, unless you will abandon yourself to be a Slave to every wild Imagination. It is a common, but it is an unhappy and a shameful thing, that every Trifle that comes across the Senses or Fancy should divert us, that a buzzing Fly should teize our Spirits, and scatter our best Ideas: But we must learn to be deaf and regardless of other things, besides that which we make the present Subject of our Meditation: And in order to help a wandring and fickle Humour, it is useful to have a Book or Paper in our Hands, which has some proper Hints of the Subject that we design to pursue. We must be resolute and laborious, and sometimes conflict with ourselves if we would be wise and learned.

Yet I would not be too severe in this *Rule:* It must be confess'd there are *Seasons* when the Mind, or rather the Brain is *overtir'd* or *jaded* with Study or thinking; or upon some other Accounts animal Nature may be *languid* or *cloudy*, and unfit to assist the Spirit in Meditation; at such Seasons (provided that they return not too often) it is better sometimes to yield to the present Indisposition; for if Nature intirely resist, nothing can be done to the Purpose, at least in that Subject or Science. Then you may think it proper to give yourself up to some Hours of *Leisure* and *Recreation*, or *useful Idleness*; or if not, then turn your Thoughts to some *other alluring Subjects*, and pore

no longer upon the *first*, till some brighter or more favourable Moments arise. A Student shall do more in one Hour, when all things concur to invite him to any special Study, than in four Hours, at a dull and improper Season.

I would also give the same Advice, if some *vain*, or *worthless*, or *foolish Idea* will crowd itself into your Thoughts; and if you find that all your Labour and Wrestling cannot defend yourself from it, then divert the Importunity of that which offends you by turning your Thoughts to some entertaining Subject, that may amuse a little and draw you off from the troublesome and imposing Guest; and many a Time also in such a Case, when the impertinent and intruding Ideas would divert from present Duty, *Devotion* and *Prayer* have been very successful to overcome such obstinate Troublers of the Peace and Profit of the Soul.

If the natural Genius and Temper be too *volatile*, *fickle* and *wandring*, such Persons ought in a more especial manner to apply themselves to *mathematical Learning*, and to begin their Studies with *Arithmetick* and *Geometry*; wherein new Truths, continually arising to the Mind out of the plainest and easiest Principles, will allure the Thoughts with incredible Pleasure in the Pursuit: This will give the Student such a delightful Taste of Reasoning, as will fix his Attention to the single Subject which he pursues and by Degrees will cure the habitual Levity of his Spirit: But let him not indulge and pursue these so far, as to neglect the prime Studies of his design'd Profession.

CHAP.

CHAP. VI.

Special Rules to direct our Conceptions of things.

A Great Part of what has been already written is design'd to lay a Foundation for those *Rules*, which may guide and regulate our Conceptions of things; this is our main Business and Design in the *first Part of Logick*. Now if we can but direct our Thoughts to a just and happy Manner in *forming our* Ideas of things, the other Operations of the Mind will not so easily be perverted; because most of our Errors in *Judgment*, and the Weakness, Fallacy and Mistake of our *Argumentation* proceed from the Darkness, Confusion, Defect, or some other Irregularity in our Conceptions.

The Rules to assist and direct our Conceptions are these.

1. Conceive of things *clearly and distinctly* in their *own Natures*.
2. Conceive of things *completely* in all their *Parts*.
3. Conceive of things *comprehensively* in all their *Properties and Relations*.
4. Conceive of things *extensively* in all their *Kinds*.
5. Conceive of things *orderly*, or in a proper *Method*.

Sect. I.

Of gaining clear and distinct Ideas.

THE first Rule is this, *Seek after a clear and distinct Conception of things as they are in their own Nature, and do not content yourselves with obscure and confused Ideas, where clearer are to be attain'd.*

There are some things indeed whereof distinct Ideas are scarce attainable, they seem to surpass the Capacity of the Understanding in our present State; such are the Notions of *Eternal*, *Immense*, *Infinite*, whether this *Infinity* be applied to *Number*, as an infinite Multitude; to *Quantity*, as infinite Length, Breadth; to *Powers* and *Perfections*, as Strength, Wisdom, or Goodness infinite, *&c.* Tho' Mathematicians in their way demonstrate several things in the Doctrine of *Infinites*, yet there are still some insolvable Difficulties that attend the Ideas of *Infinity*, when it is applied to Mind or Body; and while it is in Reality but an *Idea ever growing*, we cannot have so clear and distinct a Conception of it as to secure us from Mistakes in some of our Reasonings about it.

There are many other things that belong to the material World, wherein the sharpest Philosophers have never yet arriv'd at clear and distinct Ideas, such as the particular *Shape*, *Situation*, *Contexture*, *Motion of the small Particles of Minerals*, *Metals*, *Plants*, &c. whereby their very Natures and Essences are distinguish'd from each other. Nor have we either Senses or Instruments sufficiently nice and accurate to find them out. There are other things in the World of Spirits wherein

wherein our Ideas are very dark and confused, such as their *Union with animal Nature*, *the way of their acting on material Beings*, and their *Converse with each other*. And tho' it is a laudable Ambition to search what may be known of these Matters, yet it is a vast Hindrance to the Enrichment of our Understandings, if we spend too much of our Time and Pains among *Infinites* and *Unsearchables*, and those things for the Investigation whereof we are not furnished with proper Faculties in the present State. It is therefore of great Service to the true Improvement of the Mind to distinguish well between *Knowables* and *Unknowables*.

As far as things are knowable by us, it is of excellent Use to accustom ourselves *to clear and distinct Ideas*. Now among many other Occasions of the Darkness and Mistakes of our Minds, there are these two things which most remarkably bring *Confusion* into our Ideas.

1. That from our Infancy we have had the Ideas of things so far connected with the *Ideas of Words*, that we often mistake Words for things, we mingle and confound one with the other.

2. From our youngest Years we have been ever ready to consider things not so much in their own Natures, as in their *various Respects to ourselves*, and chiefly to our *Senses*; and we have also join'd and mingled the Ideas of *some things*, with many *other Ideas*, to which they are not akin in their own Natures.

In order therefore to a *clear and distinct* Knowledge of things, we must uncloath them of all these *Relations and Mixtures*, that we may contemplate them naked, and *in their own Natures*; and distinguish the Subject that we have in View from all other Subjects whatsoever: Now to per-

form this well, we must here consider the *Definition of Words*, and the *Definition of things*.

Sect. II.

Of the Definition of Words or Names.

IF we could conceive of things as Angels and unbodied Spirits do, without involving them in those Clouds which Words and Language throw upon them, we should seldom be in Danger of such Mistakes as are perpetually committed by us in the present State; and indeed it would be of unknown Advantage to us to accustom ourselves to *form Ideas of things without Words*, that we might know them in their *own proper Natures*. But since we must use *Words*, both to learn and to communicate most of our Notions, we should do it with just Rules of Caution. I have already declar'd in part, how often and by what Means our Words become the Occasions of Errors in our Conceptions of things. To remedy such Inconveniences, we must get an exact *Definition of the Words* we make use of, *i. e.* we must determine precisely the Sense of our Words, which is call'd the *Definition of the Name*.

Now a *Definition of the Name* being only a *Declaration in what Sense the Word is used*, or what Idea or Object we mean by it, this may be express'd by any one or more of the Properties, Effects or Circumstances of that Object which do sufficiently distinguish it from other Objects: As if I were to tell what I mean by the Word *Air*, I might say it is *that thin Matter which we breathe in and breathe out continually*; or it is *that fluid Body in which the Birds fly a little above the Earth*; or it is *that invisible Matter which fills all Places*

Places near the Earth, or which immediately encompasses the Globe of Earth and Water. So if I would tell what I mean by *Light*, I would say, it is *that Medium whereby we see the Colours and Shapes of things*; or it is *that which distinguishes the Day from the Night.* If I were ask'd what I mean by *Religion*, I would answer, it is a *Collection of all our Duties to God*, if taken in a strict and limited Sense; but if taken in a large Sense, it is a *Collection of all our Duties both to God and Man.* These are call'd the *Definitions of the Name.*

Note, In defining the Name there is no Necessity that we should be acquainted with the intimate Essence or Nature of the thing; for any manner of *Description* that will but sufficiently acquaint another Person what we mean by such a Word, is a sufficient *Definition for the Name.* And on this Account, a *synonymous* Word, or a mere *Negation of the contrary*, a *Translation of the Word* into another Tongue, or a *grammatical Explication* of it, is sometimes sufficient for this Purpose; as if one would know what I mean by a *Sphere*, I tell him it is a *Globe*; if he ask what is a *Triangle*, it is that *which has three Angles*; or an *Oval* is that which has the *Shape of an Egg*. *Dark* is that which has *no Light*; *Asthma* is a *Difficulty of Breathing*; a *Diaphoretick* Medicine, or a *Sudorifick*, is something that will *provoke Sweating*; and an *Insolvent* is a Man *that cannot pay his Debts.*

Since it is the Design of *Logick*, not only to assist us in *Learning* but in *Teaching* also, it is necessary that we should be furnish'd with some particular Directions relating to the *Definition of Names*, both in *Teaching* and *Learning.*

Sect. III.

Directions concerning the Definition of Names.

Direct. I. *HAVE a Care of making uſe of mere Words, inſtead of Ideas*; i. e. ſuch Words as have no Meaning, no Definition belonging to them: *Do not always imagine that there are Ideas whereſoever there are Names*; for tho' Mankind hath ſo many Millions of Ideas more than they have Names, yet ſo fooliſh and laviſh are we, that too often we uſe ſome Words in mere Waſte, and have *no Ideas* for them; or at leaſt, our Ideas are ſo exceedingly ſhattered and confus'd, broken and blended, various and unſettled, that they can ſignify nothing toward the Improvement of the Underſtanding. You will find a great deal of Reaſon for this Remark, if you read the *Popiſh School-men*, or the *myſtick Divines*.

Never reſt ſatisfied therefore with *mere Words which have no Ideas belonging to them*, or at leaſt *no ſettled and determinate Ideas*. Deal not in ſuch empty Ware, whether you are a Learner or a Teacher; for hereby ſome Perſons have made themſelves rich in Words, and learned in their own Eſteem; whereas in reality their Underſtandings have been poor and they knew nothing.

Let me give for inſtance ſome of thoſe Writters or Talkers who deal much in the Words *Nature*, *Fate*, *Luck*, *Chance*, *Perfection*, *Power*, *Life*, *Fortune*, *Inſtinct*, &c. and that even in the moſt calm and inſtructive Parts of their Diſcourſe; though neither they themſelves nor their Hearers have any ſettled Meaning under thoſe Words;

and thus they build up their Reasonings, and infer what they please, with an Ambition of the Name of Learning or of sublime Elevations in Religion; whereas in truth, they do but amuse themselves and their Admirers with *swelling Words of Vanity, understanding neither what they say, nor whereof they affirm.* But this sort of Talk was reproved of old by the two chief Apostles St. *Peter* and St. *Paul*, 1 *Tim.* i. 7. and 2 *Pet.* ii. 18.

When Pretenders to Philosophy or good Sense grow fond of this sort of Learning, they dazzle and confound their weaker Hearers, but fall under the Neglect of the Wise. The *Epicureans* are guilty of this Fault, when they ascribe the Formation of this World to *Chance:* The *Aristotelians*, when they say, *Nature abhors a Vacuum:* The *Stoicks* when they talk of *Fate*, which is superior to the Gods: And the *Gamesters* when they curse their *Ill-Luck*, or hope for the Favours of *Fortune.* Whereas, if they would tell us, that by the Word *Nature* they mean *the Properties of any Being*, or *the order of things established at the Creation*; that by the Word *Fate* they intend the *Decrees of God*, or the *necessary Connection and Influence of second Causes and Effects*; if by the Word *Luck* or *Chance* they signify the *absolute Negation of any determinate Cause*, or only *their Ignorance of any such Cause*, we should know how to converse with them, and to assent to, or dissent from their Opinions. But while they flutter in the dark, and make a Noise with Words which have no fixt Ideas, they talk to the Wind, and can never profit.

I would make this Matter a little plainer still by Instances borrowed from the *Peripatetick* Philosophy, which was taught once in all the Schools.

Schools. The Professor fancies he has assign'd the true Reason, why all *heavy Bodies tend downward*, why *Amber will draw Feathers and Straws*, and the *Loadstone draw Iron*, when he tells you, that this is done by certain *gravitating* and *attractive Qualities*, which proceed from the *substantial Forms* of those various Bodies. He imagines that he has explain'd why *the Loadstone's* * *North Pole*, *shall repel the North End of a magnetick Needle*, *and attract the South*, when he affirms, that this is done by its *Sympathy*, with one End of it, and its *Antipathy* against the other End. Whereas in truth, all these Names of *Sympathy*, *Antipathy*, *substantial Forms* and *Qualities*, when they are put for the Causes of these Effects in Bodies, are but hard Words, which only express a learned and pompous Ignorance of the true Cause of natural Appearances; and in this Sense they are *mere Words without Ideas*.

This will evidently appear, if one ask me, *why a concave Mirrour or convex Glass will burn Wood* in the Sun-Beams, or *why a Wedge will cleave it?* And I should tell him, it is by an *ustorious Quality* in the Mirrour or Glass, and by a *cleaving Power* in the Wedge, arising from a certain unknown *substantial Form* in them, whence they derive these *Qualities*; or if he should ask me why a *Clock strikes*, *and points to the Hour*, and I should say, it is by an *indicating Form* and *sonorific Quality*; whereas, I ought to tell him how the Sun-Beams are collected and united by a *burning Glass*; whence the mechanical Force of a *Wedge* is deriv'd; and what are the *Wheels* and *Springs*,

* *Note*, Some Writers call that the *South-Pole* of a Loadstone which attracts the *South-End* of the Needle; but I chuse to follow those who call it the *North-Pole*.

the

the *Pointer* and *Hammer*, and *Bell*, whereby a *Clock* gives notice of the Time, both to the Eye and the Ear. But these *ustorious* and *cleaving Powers*, *sonorous and indicating Forms and Qualities*, do either teach the Enquirer nothing at all but what he knew before, or they are *mere Words without Ideas* *.

And there is many a Man in the vulgar and in the learned World, who imagines himself deeply skilled in the *Controversies of Divinity*, whereas, he has only furnished himself with a Parcel of *scholastick* or *mystick* Words, under some of which the Authors themselves had no just Ideas, and the Learner when he hears, or pronounces them, hath scarce any Ideas at all. Such sort of Words sometimes have become Matters of immortal Contention, as though the Gospel could not stand without them; and yet the Zealot perhaps knows little more of them than he does of *Shibboleth*, or *Higgaion. Selah. Judges* xii. 6. *Psal.* ix. 16.

Yet here I would lay down *this Caution*, that there are several Objects of which we have not a clear and distinct Idea, much less an adequate or comprehensive one, and yet we cannot call the Names of these things *Words without Ideas*;

* It may be *objected* here, "And what does the modern Philosopher, "with all his detail of mathematical Numbers and Diagrams, do more "than this toward the Solution of these Difficulties? Does he not describe "*Gravity* by a certain *unknown Force, whereby Bodies tend downward to the* "*Center?* Hath he found the certain and mechanical Reasons of *Attraction*, "*Magnetism*, &c.?" I *Answer*, That the Moderns have found a thousand things by applying Mathematicks to natural Philosophy, which the Ancients were ignorant of; and when they use any Names of this Kind, *viz. Gravitation, Attraction*, &c. they use them only to signify, that there are such Effects and such Causes, with a frequent Confession of their Ignorance of the true Springs of them: They do not pretend to make *these Words* stand for the *real Causes* of things, as tho' they thereby assigned the true philosophical Solution of these Difficulties; for in this Sense they will still be *Words without Ideas*, whether in the Mouth of an *old* Philosopher or a *new* one.

such are the *Infinity* and *Eternity* of God himself, the *Union of our own Soul and Body*, the *Union of the divine and human Natures in Jesus Christ*, *the Operation of the holy Spirit on the Mind of Man*, &c. These ought not to be call'd *Words without Ideas*, for there is sufficient Evidence for the Reality and Certainty of the Existence of their Objects, tho' there is some Confusion in our clearest Conceptions of them; and our Ideas of them, tho' imperfect, are yet sufficient to converse about them, so far as we have Need, and to determine so much as is necessary for our own Faith and Practice.

Direct. II. *Do not suppose that the Natures or Essences of things always differ from one another, as much as their Names do.* There are various Purposes in human Life, for which we put very different Names on the same thing, or on things, whose Natures are near akin; and thereby oftentimes, by making a new *nominal Species*, we are ready to deceive ourselves with the Idea of another *real Species of Beings:* And those whose Understandings are led away by the mere Sound of Words, fancy the *Nature* of those *things* to be very different, whose *Names* are so, and judge of them accordingly.

I may borrow a remarkable Instance for my Purpose almost out of every Garden, which contains a Variety of Plants in it. Most or all Plants agree in this, that they have a *Root*, a *Stalk*, *Leaves*, *Buds*, *Blossoms* and *Seeds:* But the Gardiner ranges them under very different Names, as tho' they were really different Kinds of Beings, merely because of the different Use and Service to which they are applied by Men: As for Instance, those

those. Plants whose *Roots* are eaten shall appropriate the Name of *Roots* to themselves; such are *Carrots*, *Turnips*, *Radishes*, &c. If the *Leaves* are of chief use to us, then we call them *Herbs*; as *Sage*, *Mint*, *Thyme:* If the *Leaves* are eaten raw they are termed *Sallad*; as *Lettuce*, *Purslain:* If boiled, they become *Pot-herbs*; as *Spinage*, *Coleworts*; and some of those same Plants, which are *Pot-herbs* in one Family, are *Sallad* in another. If the *Buds* are made our Food, they are call'd *Heads*, or *Tops*; so *Cabbage* Heads, Heads of *Asparagus* and *Artichoaks*. If the *Blossom* be of most Importance, we call it a *Flower*; such are *Daisies*, *Tulips*, and *Carnations*, which are the mere Blossoms of those Plants. If the *Husk* or *Seeds* are eaten, they are call'd the *Fruits of the Ground*, as *Pease*, *Beans*, *Strawberries*, &c. If any Part of the Plant be of known and common Use to us in *Medicine*, we call it a *physical Herb*, as *Carduus*, *Scurvey-grass*; but if we count no Part useful, we call it a *Weed*, and throw it out of the Garden; and yet perhaps our next Neighbour knows some valuable Property and Use of it; he Plants it in his Garden, and gives it the Title of an *Herb* or a *Flower*. You see here how small is the real Distinction of these several *Plants*, consider'd in their general Nature as the *lesser Vegetables*; yet what very different Ideas we vulgarly form concerning them, and make different *Species* of them, chiefly because of the different Names given them.

Now when things are set in this clear Light, it appears how ridiculous it would be for two Persons to contend, whether *Dandelion* be a *Herb*, or a *Weed*; whether it be a *Pot-herb* or *Sallad*; when by the Custom or Fancy of different Families, this one Plant obtains all these Names, according

cording to the ſeveral Uſes of it, and the Value that is put upon it.

Note here, that I find no manner of Fault with the Variety of Names which are given to ſeveral Plants, according to the various Uſes we make of them. But I would not have our Judgments impos'd upon hereby, to think that theſe mere *nominal* Species, *viz. Herbs*, *Sallad* and *Weeds* become three *really* different Species of Beings, on this Account, that they have different Names and Uſes. But I proceed to other Inſtances.

It has been the Cuſtom of Mankind, when they have been angry with any thing, to add a *new ill Name* to it, that they may convey thereby a hateful Idea of it, tho' the Nature of the thing ſtill abides the ſame. So the Papiſts call the *Proteſtants Hereticks:* A prophane Perſon calls a *Man of Piety*, a *Preciſian:* And in the Times of the Civil War in the laſt Century, the *Royaliſts* call'd the *Parliamentarians*, *Fanaticks*, *Roundheads* and *Sectaries:* And they in Requital call'd the *Royaliſts*, *Malignants:* But the Partizans on each ſide were really neither better nor worſe for theſe Names.

It has alſo been a frequent Practice on the other Hand, to put *new favourable Names* upon *ill Ideas*, on purpoſe to take off the Odium of them. But notwithſtanding all theſe flattering Names and Titles, a Man of profuſe Generoſity is but a *Spendthrift*; a natural Son is a *Baſtard* ſtill; a Gallant is an *Adulterer*, and a Lady of Pleaſure is a *Whore*.

Direct. III. *Take heed of believing the Nature and Eſſence of two or more things to be certainly the ſame, becauſe they may have the ſame Name given them.* This has been an unhappy and fatal Occaſion

sion of a thousand Mistakes in the natural, in the civil, and in the religious Affairs of Life, both amongst the Vulgar and the Learned. I shall give two or three Instances, chiefly in the Matters of *Natural Philosophy*, having hinted several Dangers of this Kind, relating to *Theology* in the foregoing Discourse concerning *Equivocal Words*.

Our elder Philosophers have generally made use of the Word SOUL to signify that Principle whereby a Plant grows, and they call'd it the *vegetative Soul:* The Principle of the animal Motion of a Brute has been likewise call'd a *Soul*, and we have been taught to name it the *sensitive Soul:* They have also given the Name *Soul* to that superior Principle in Man, whereby he thinks, judges, reasons, *&c.* and tho' they distinguish'd this by the honourable Title of the *rational Soul*, yet in common Discourse and Writing we leave out the Words *vegetative*, *sensitive* and *rational*; and make the Word *Soul* serve for all these Principles: Thence we are led early into this Imagination, that *there is a sort of spiritual Being in Plants and in Brutes, like that in Men.* Whereas, if we did but abstract and separate these Things from Words, and compare the Cause of *Growth* in a Plant, with the Cause of *Reasoning* in *Man* (without the Word *Soul*) we should never think that these two Principles were at all like one another; nor should we perhaps so easily and peremptorily conclude, that *Brutes* need an intelligent Mind to perform their animal Actions.

Another Instance may be the Word LIFE, which being attributed to *Plants*, to *Brutes*, and to *Men*, and in each of them ascribed to the *Soul*, has very easily betrayed us from our Infancy into this Mistake, that *the Spirit, or Mind, or thinking Principle in Man, is the Spring of vegetative*

an animal life to his body: Whereas it is evident, that if the Spirit or thinking Principle of Man gave *Life* to his animal Nature, the Way to ſave Men from dying would not be to uſe Medicines, but to perſuade the Spirit to abide in the Body.

I might derive a third Inſtance from the Word HEAT; which is us'd to ſignify the *Senſation we have* when we are near the Fire, as well as the *Cauſe of that Senſation* which is in the Fire it ſelf; and thence we conclude from our Infancy, that *there is a ſort of Heat in the Fire reſembling our own Senſation, or the Heat which we feel:* Whereas in the Fire there is nothing but little Particles of Matter, of ſuch particular Shapes, Sizes, Situations and Motions, as are fitted to impreſs ſuch Motions on our Fleſh or Nerves as excite the Senſe of *Heat.* Now if this Cauſe of our Senſation in the Fire had been always call'd by a diſtinct Name, perhaps we had not been ſo rooted in this Miſtake, that *the Fire is hot with the ſame ſort of Heat that we feel.* This will appear with more Evidence, when we conſider that we are ſecure from the ſame Miſtake where there have been two different Names allotted to our *Senſation,* and to the *Cauſe* of it; as, we do not ſay, *Pain is in the Fire* that burns us, or *in the Knife* that cuts and wounds us; for we call it *burning* in the *Fire, cutting* in the *Knife,* and *Pain* only, when it is in *our ſelves.*

Numerous Inſtances of this Kind might be deriv'd from the Words *ſweet, ſour, loud, ſhrill,* and almoſt all the *ſenſible Qualities,* whoſe real Natures we miſtake from our very Infancy, and we are ready to ſuppoſe them to be the ſame in us, and in the Bodies that cauſe them; partly, becauſe the Words, which ſignify our own Senſations,

ons, are applied also to signify those unknown Shapes and Motions of the little Corpuscles which excite and cause those Sensations.

Direct. IV. *In Conversation or Reading be diligent to find out the true Sense, or distinct Idea, which the Speaker or Writer affixes to his Words; and especially to those Words which are the chief Subject of his Discourse.* As far as possible take heed, lest you put more or fewer Ideas into one Word, than the Person did when he wrote or spoke; and endeavour that your Ideas of every Word may be the same as his were: Then you will judge better of what he speaks or writes.

It is for want of this that Men quarrel in the Dark; and that there are so many Contentions in the several Sciences, and especially in *Divinity* Multitudes of them arise from a Mistake of the true Sense or compleat Meaning, in which Words are us'd by the Writer or Speaker; and hereby sometimes *they seem to agree, when they really differ* in their Sentiments; and sometimes *they seem to differ when they really agree.* Let me give an Instance of both.

When one Man by the Word *Church* shall understand *all that believe in Christ*; and another by the Word *Church* means only the *Church of Rome*; they may both assent to this Proposition, *There is no Salvation out of the Church*, and yet their inward Sentiments may be widely different.

Again, if one Writer shall affirm that *Virtue added to Faith is sufficient to make a Christian*, and another shall as zealously deny this Proposition, they seem to differ widely in Words, and yet perhaps they may both really agree in Sentiment:

If by the Word *Virtue*, the Affirmer intends our *whole Duty to God and Man*; and the Denier by the Word *Virtue* means only *Courage*, or at moſt our *Duty toward our Neighbour*, without including in the Idea of it the *Duty which we owe to God.*

Many ſuch ſort of Contentions as theſe are, if traced to their Original, will be found to be mere *Logomachies*, or Strifes and Quarrels about Names and Words, and *vain Janglings*, as the Apoſtle calls them in his firſt Letter of Advice to *Timothy.*

In order therefore to attain *clear and diſtinct* Ideas of what we read or hear, we muſt ſearch the *Senſe of Words*; we muſt conſider what is their Original and Derivation in our own or foreign Languages; what is their common Senſe amongſt Mankind, or in other Authors, eſpecially ſuch as wrote in the ſame Country, in the ſame Age, about the ſame Time, and upon the ſame Subjects: We muſt conſider in what Senſe the ſame Author uſes any particular *Word or Phraſe*, and that when he is diſcourſing on the ſame Matter, and eſpecially about the ſame Parts or Paragraphs of his Writing: We muſt conſider whether the Word be uſed in a ſtrict and limited, or in a large and general Senſe; whether in a literal, in a figurative, or in a prophetick Senſe; whether it has any ſecondary Idea annext to it beſides the primary or chief Senſe. We muſt enquire farther, what is the Scope and Deſign of the Writer; and what is the Connection of that Sentence with thoſe that go before it, and thoſe which follow it. By theſe and other Methods we are to ſearch out the *Definition of Names*, i. e. the true Senſe and Meaning in which any Author or Speaker uſes any Word, which may be the chief Subject of

of Discourse, or may carry any considerable Importance in it.

Direct. V. *When we communicate our Notions to others, merely with a Design to inform and improve their Knowledge, let us in the beginning of our Discourse take care to adjust the Definition of Names wheresoever there is need of it*; that is, *to determine plainly what we mean by the chief Words which are the Subject of our Discourse*; *and be sure always to keep the same Ideas, whensoever we use the same Words, unless we give due Notice of the Change.* This will have a very large and happy Influence, in securing not only others but our selves too from Confusion and Mistake; for even Writers and Speakers themselves, for want of due Watchfulness, are ready to affix *different Ideas to their own Words*, in different Parts of their Discourses, and hereby bring Perplexity into their own Reasonings, and confound their Hearers.

It is by an observation of this Rule, that *Mathematicians* have so happily secured themselves, and the *Sciences* which they have profest, from Wrangling and Controversy; because whensoever in the Progress of their Treatises they have Occasion to use a new and unknown Word, they always *define* it, and tell in what Sense they shall take it; and in many of their Writings you find a heap of *Definitions* at the very beginning. Now if the Writers of *Natural Philosophy* and *Morality* had us'd the same Accuracy and Care, they had effectually secluded a Multitude of noisy and fruitless Debates out of their several Provinces: Nor had that sacred Theme of *Divinity* been perplexed with so many intricate Disputes, nor the Church of *Christ* been torn to pieces by so many Sects and Factions, if the Words *Grace*, *Faith*, *Righte-*

ouſneſs, *Repentance*, *Juſtification*, *Worſhip*, *Church*, *Biſhop*, *Preſbyter*, &c. had been well defined, and their Significations adjuſted, as near as poſſible, by the Uſe of thoſe Words in the new Teſtament; or at leaſt, if every Writer had told us at firſt in what Senſe he would uſe thoſe Words.

Direct. VI. *In your own Studies, as well as in the Communication of your Thoughts to others, merely for their Information, avoid ambiguous and equivocal Terms as much as poſſible.* Do not uſe ſuch Words as have two or three *Definitions of the Name* belonging to them, *i. e.* ſuch Words as have two or three Senſes, where there is any Danger of Miſtake. Where your chief Buſineſs is to inform the Judgment, and to explain a Matter, rather than to perſuade or affect, be not fond of expreſſing your ſelves in *figurative* Language, when there are any proper Words that ſignify the ſame Idea in their *literal* Senſe. It is the *Ambiguity of Names*, as we have often ſaid, that brings almoſt infinite Confuſion into our *Conceptions of Things*.

But where there is a neceſſity of uſing an *ambiguous Word*, there let double Care be us'd in *defining* that Word, and declaring in what Senſe you take it. And be ſure to ſuffer no *ambiguous* Word ever to come into your *Definitions*.

Direct. VII. *In communicating your Notions, uſe every Word as near as poſſible in the ſame Senſe in which Mankind commonly uſes it; or which Writers that have gone before you have uſually affixt to it, upon Condition that it is free from Ambiguity.* Tho' Names are in their Original merely arbitrary, yet we ſhould always keep to the eſtabliſh'd Meaning of them, unleſs great Neceſſity require the Alteration;

teration; for when any Word has been us'd to signify an Idea, that old Idea will recur in the Mind when the Word is heard or read, rather than any new Idea which we may fasten to it. And this is one Reason why the *received Definitions of Names* should be chang'd as little as possible.

But I add farther, that tho a Word entirely new, introduced into a Language, may be affixed to what Idea you please, yet an old Word ought never to be fixt to an unaccustomed Idea, without just and evident Necessity, or without present or previous Notice, lest we introduce thereby a License for all manner of pernicious *Equivocations* and *Falshoods*; as for Instance, when an idle Boy who has not seen his Book all the Morning shall tell his Master that *he has learnt his Lesson*, he can never excuse himself by saying, that by the Word *Lesson* he meant his *Breakfast*, and by the Word *learn* he meant *eating*; surely this would be construed a downright Lye, and his fancied Wit would hardly procure his Pardon.

In using an ambiguous Word which has been us'd in different Senses, we may chuse what we think the most proper Sense, as I have done *p.* 86. in naming the *Poles of the Loadstone*, North *or* South.

And when a Word has been us'd in two or three Senses, and has made a great Inroad for Error upon that account, it is of good Service to drop one or two of those Senses, and leave it only one remaining, and affix the other Senses or Ideas to other Words. So the modern Philosophers, when they treat of the *human Soul*, they call it the *Mind* or *Mens humana*, and leave the Word *Anima* or *Soul* to signify the *Principle of Life and Motion in mere animal Beings*.

The Poet *Juvenal* has long ago given us a hint of this Accuracy and Distinction when he says of *Brutes* and *Men*,

Indulsit mundi communis Conditor illis
Tantum Animas; *nobis* Animum *quoque.*
Sat. xvi. *v.* 134.

Exception. There is one Case wherein some of these last Rules concerning *the Definition of Words* may be in some measure dispensed with; and that is, when strong and rooted Prejudice hath establish'd some favourite Word or Phrase, and long us'd it to express some mistaken Notion, or to unite some inconsistent Ideas; for then it is sometimes much easier to lead the World into Truth by indulging their fondness for a Phrase, and by assigning and applying new Ideas and Notions to their favourite Word; and this is much safer also than to awaken all their Passions by rejecting both their old Words, and Phrases, and Notions, and introducing all new at once: Therefore we continue to say, *There is Heat in the Fire*, *there is Coldness in Ice*, rather than invent new Words to express the Powers which are in *Fire* or *Ice*, to excite the Sensations of *Heat* or *Cold* in us. For the same Reason some Words and Phrases which are less proper may be continued in *Theology*, while People are led into clearer Ideas with much more Ease and Success, than if an Attempt were made to change all their beloved Forms of Speech.

In other Cases these *logical Directions* should generally be observed, and different Names affixt to different Ideas.

Here I cannot but take Occasion to remark, that it is a considerable Advantage to any Language to have a *Variety of new Words* introduc'd into

into it, that when in Course of Time *new Objects* and *new Ideas* arise, there may be *new Words* and *Names* assign'd to them: And also where one single Name has sustain'd two or three Ideas in Time past, these new Words may remove the Ambiguity by being affixt to some of those Ideas. This Practice would by degrees take away part of the Uncertainty of Language. And for this Reason I cannot but congratulate our *English Tongue*, that it has been abundantly enrich'd with the Translation of Words from all our neighbour Nations, as well as from antient Languages, and these Words have been as it were enfranchised amongst us; for *French*, *Latin*, *Greek* and *German* Names will signify *English* Ideas, as well as Words that are antiently and intirely *English*.

It may not be amiss to mention in this Place, that as the Determination of the particular Sense in which any Word is us'd is call'd the *Definition of the Name*, so the Enumeration of the various Senses of any equivocal Word is sometimes call'd the *Division or Distinction of the Name*; and for this Purpose good Dictionaries are of excellent Use.

This *Distinction of the Name or Word* is greatly necessary in Argumentation or Dispute; when a fallacious Argument is us'd, he that answers it distinguishes the several Senses of some Word or Phrase in it, and shews in what Sense it is *true* and in what Sense it is as evidently *false*.

Sect. IV.

Of the Definition of Things.

AS there is much Confuſion introduced into our Ideas, by the Means of thoſe *Words* to which they are affix'd; ſo the *mingling our Ideas* with each other without Caution, is a farther Occaſion whereby they become confus'd. A *Court-Lady*, born and bred up amongſt *Pomp* and *Equipage*, and the vain Notions of *Birth* and *Quality*, conſtantly joins and mixes all theſe with the Idea of her ſelf, and ſhe imagines theſe to be *eſſential to her Nature*, and as it were *neceſſary to her Being*; thence ſhe is tempted to look upon *menial Servants*, and the loweſt Rank of Mankind, as *another Species of Beings* quite diſtinct from her ſelf. A *Plough Boy* that has never travelled beyond his own Village, and has ſeen nothing but *thatch'd Houſes* and his *Pariſh-Church*, is naturally led to imagine that *Thatch* belongs to the very Nature of a *Houſe*, and that that muſt be a *Church* which is built of *Stone*, and eſpecially if it has a *Spire* upon it. A *Child* whoſe *Uncle* has been exceſſive fond, and his *Schoolmaſter* very ſevere, eaſily believes that *Fondneſs* always belongs to *Uncles*, and that *Severity* is eſſential to *Maſters* or *Inſtructors*. He has ſeen alſo *Soldiers* with *red Coats*, or *Miniſters* with *long black Gowns*, and therefore he perſuades himſelf that theſe Garbs are eſſential to the Characters, and that he is not a *Miniſter* who has not a *long black Gown*, nor can he be a *Soldier* who is not dreſs'd in *red*. It would be well if all ſuch Miſtakes ended with Childhood.

It might be also subjoin'd, that our complex Ideas become confus'd, not only by *uniting* or *blending together more simple* or *single Ideas* than really belong to them, as in the Instances just mentioned; but Obscurity and Confusion sometimes come upon our Ideas also, *for want of uniting a sufficient Number of single Ideas* to make the complex one: So if I conceive of a *Leopard* only as a *spotted Beast*, this does not distinguish it from a *Tiger* or a *Lynx*, nor from many *Dogs* or *Horses*, which are spotted too; and therefore a *Leopard* must have some more Ideas added to complete and distinguish it.

I grant that it is a large and free Acquaintance with the World, a watchful Observation and diligent Search into the Nature of things that must fully correct this kind of Errors: The *Rules* of *Logick* are not sufficient to do it: But yet the *Rules* of *Logick* may instruct us by what means to distinguish one thing from another, and how to search and mark out as far as may be the Contents and Limits of the Nature of distinct Beings, and thus may give us great Assistance towards the Remedy of these Mistakes.

As the *Definition of Names* frees us from that Confusion which *Words* introduce, so the *Definition of Things* will in some Measure guard us against that Confusion which *mingled Ideas* have introduced: For as a *Definition of the Name* explains what any Word means, so a *Definition of the Thing* explains what is the Nature of that thing.

In order to form a *Definition* of any thing we must put forth these three Acts of the Mind.

1st, Compare the thing to be defined with other things that are most like to itself, and see

wherein its Eſſence or Nature agrees with them; and that is call'd the *general Nature* or *Genus* in a Definition: So if you would define what *Wine* is, firſt compare it with other Things like itſelf, as *Cyder*, *Perry*, *&c.* and you will find it agrees eſſentially with them in this, that it is a *ſort of Juice.*

2dly, Conſider the moſt remarkable and primary Attribute, Property, or Idea wherein this Thing differs from thoſe other Things that are moſt like it; and that is its *eſſential* or *ſpecific Difference:* So *Wine* differs from *Cyder* and *Perry*, and all *other Juices*, in that it is *preſſed from a Grape.* This may be call'd its *ſpecial Nature*, which diſtinguiſhes it from other *Juices.*

3dly, Join the general and ſpecial Nature together, or (which is all one) the *Genus* and the *Difference*, and theſe make up a *Definition.* So the *Juice of a Grape*, or *Juice preſt from Grapes* is the *Definition* of *Wine.*

So if I would define what *Winter* is, I conſider firſt wherein it agrees with other Things which are moſt like it (*viz.*) *Summer*, *Spring*, *Autumn*, and I find they are all *Seaſons of the Year*; therefore a *Seaſon of the Year* is the *Genus.* Then I obſerve wherein it differs from theſe, and that is in the *ſhortneſs of the Days*; for it is this which does primarily diſtinguiſh it from other *Seaſons*; therefore this may be call'd its *ſpecial Nature* or its *Difference.* Then by joining theſe together I make a *Definition. Winter* is *that Seaſon of the Year wherein the Days are ſhorteſt.* I confeſs indeed this is but a ruder Definition of it, for to define it as an accurate Aſtronomer I muſt limit the Days, Hours and Minutes.

After the ſame manner if we would explain or define what the *Picture of a Man* is, we conſider

first the *Genus* or *general Nature* of it, which is a *Representation*; and herein it agrees with many other Things, as a *Statue*, a *Shadow*, a *Print*, a *verbal Description* of a Man, *&c.* Then we consider wherein it differs from these, and we find it differs from a *verbal Description* in that it is a *Representation* to the Eye and not to the Ear: It differs from a *Statue* in that it is a *Representation* upon a flat Surface, and not in a solid Figure: It differs from a *Shadow* in that it is an abiding Representation and not a fleeting one: It differs from a *Print* or *Draught*, because it represents the Colours by Paint as well as the Shape of the Object by Delineation. Now so many, or rather so few of these Ideas put together, as are just sufficient to distinguish *a Picture* from all other *Representations*, make up its essential Difference or its *special Nature*; and all these are included in its *being painted on a plain Surface.* Then join this to the *Genus*, which is a *Representation*; and thus you have the compleat *Definition* of the *Picture* of a Man, *viz.* it is the *Representation of a Man in Paint upon a Surface (or a Plane.)*

Here it must be *observed*, that when we speak of the *Genus* and *Difference* as composing a *Definition*, it must always be understood that the *nearest Genus* and the *specifick Difference* are required.

The *next general Nature* or the *nearest Genus* must be us'd in a Definition, because it includes all the rest; as if I would define *Wine*, I must say *Wine is a Juice*, which is the nearest Genus; and not say, *Wine is a Liquid*, which is a remote general Nature; or *Wine is a Substance*, which is yet more remote, for *Juice* includes both *Substance* and *Liquid.* Besides, neither of these two remote general Natures would make

any

any Distinction betwixt *Wine* and a thousand other *Substances*, or other *Liquids*; a *remote Genus* leaves the thing too much undistinguish'd.

The *specifick Difference* is that primary Attribute which distinguishes each Species from one another, while they stand ranked under the same general Nature or Genus. Tho' *Wine* differs from other Liquids in that it is the *Juice of a certain Fruit*, yet this is but a *general* or *generick Difference*, for it does not distinguish *Wine* from *Cyder* or *Perry*; the *specifick Difference* of *Wine* therefore is its *Pressure from the Grape*, as *Cyder* is press'd from *Apples*, and *Perry* from *Pears*.

In Definitions also we must use the *primary Attribute* that distinguishes the *Species* or special Nature, and not attempt to define *Wine* by its particular Tastes, or Effects, or other Properties, which are but *secondary* or *consequential*, when its *Pressure from the Grape* is the most obvious and primary Distinction of it from all other Juices. I confess in some Cases it is not so easily known which is the primary Idea that distinguishes one thing from another; and therefore some would as soon define *Winter* by the *Coldness of the Season*, as by the *Shortness of the Days*; though the *Shortness of the Days* is doubtless the most just, primary and philosophical Difference betwixt that and the other Seasons of the Year, since Winter Days are always *shortest*, but not always the *coldest:* I add also, that the *Shortness of the Days* is one Cause of the *Coldness*, but the *Cold* is no Cause of their *Shortness*.

SECT.

Sect. V.

Rules of Definition of the thing.

THE *special Rules of a good Definition* are these:

Rule I. *A Definition must be universal*, or as some call it, *adequate*; that is, it must agree to all the particular Species or Individuals that are included under the same Idea; so the *Juice of a Grape* agrees to all proper *Wines*, whether *Red*, *White*, *French*, *Spanish*, *Florence*, &c.

Rule II. *It must be proper and peculiar to the thing defined, and agree to that alone*; for it is the very Design of a Definition effectually to distinguish one thing from all others: So the *Juice of a Grape* agrees to no other Substance, to no other Liquid, to no other Being but *Wine*.

These two *Rules* being observed will always render a Definition *reciprocal with the thing defined*; which is a scholastick Way of speaking, to signify that the *Definition* may be used in any Sentence in the Place of the *thing defined*, or they may be mutually affirmed concerning each other, or substituted in the room of each other. *The Juice of the Grape is Wine, or Wine is the Juice of the Grape.* And whereſoever the Word *Wine* is us'd, you may put the *Juice of the Grape* instead of it, except when you consider *Wine* rather as a *Word* than a *Thing*, or when it is mentioned in such *logical* Rules.

Rule

Rule III. *A Definition ought to be clear and plain*; for the Design of it is to lead us into the Knowledge of the thing defined.

Hence it will follow that the Words us'd in a Definition ought not to be *doubtful*, and *equivocal*, and *obscure*, but as plain and easy as the Language will afford: And indeed it is a general Rule concerning the Definition both of *Names* and *Things*, that no Word should be us'd in either of them which has any Darkness or Difficulty in it, unless it has been before explain'd or defin'd.

Hence it will follow also, that there are many Things which cannot well be defin'd either as to the *Name* or the *Thing*, unless it be by synonymous Words, or by a Negation of the contrary Idea, *&c.* for learned Men know not how to make them more evident or more intelligible than the Ideas which every Man has gained by the vulgar Methods of teaching. Such are the Ideas of *Extension*, *Duration*, *Thought*, *Consciousness*, and most of our simple Ideas, and particularly sensible Qualities, as *White*, *Blue*, *Red*, *Cold*, *Heat*, *Shrill*, *Bitter*, *Sour*, *&c.*

We can say of *Duration* that it is a *Continuance in Being*, or *a not ceasing to be*; we can say of *Consciousness*, that it is *as it were a Feeling within our selves*; we may say *Heat* is that which is not *Cold*; or *Sour* is that which is *like Vinegar*; or we may point to the clear Sky, and say that is *Blue*. These are the vulgar Methods of teaching the *Definitions of Names*, or Meaning of Words. But there are some Philosophers whose Attempt to define these Things learnedly have wrapt up their Ideas in greater Darkness, and expos'd themselves to ridicule and Contempt; as when they define *Heat* they say, it is *Qualitas congregans homogenea*

mogenea & segregans heterogenea, *i. e.* a Quality gathering together Things of the same Kind, and separating Things of a different Kind. So they define *White*, a *Colour arising from the Prevalence of Brightness:* But every Child knows *Hot* and *White* better without these Definitions.

There are many other Definitions given by the *peripatetick* Philosophers, which are very faulty by Reason of their *Obscurity*; as *Motion* is defined by them *the Act of a Being in Power so far forth as it is in Power*. *Time* is the *Measure or Number of Motion according to past, present* and *future*. The *Soul* is the *Act of an organical natural Body, having Life in Power*; and several others of the same Stamp.

Rule IV. It is also commonly prescribed amongst the Rules of Definition, *that it should be short*, so that it *must have no Tautology in it, nor any Words superfluous*. I confess Definitions ought to be express'd in as few Words as is consistent with a clear and just Explication of the Nature of the Thing defin'd, and a Distinction of it from all other Things beside: But it is of much more Importance, and far better, that a Definition should explain clearly the Subject we treat of, tho' the Words be *many*, than to leave Obscurities in the Sentence, by confining it within too narrow Limits. So in the Definition which we have given of *Logick*, that it is the *Art of using Reason well in the Search after Truth and the Communication of it to others*, it has indeed many Words in it, but it could not well be shorter. *Art* is the *Genus* wherein it agrees with *Rhetorick*, *Poesy*, *Arithmetic*, *Wrestling*, *Sailing*, *Building*, *&c.* for all these are *Arts* also: But the Difference or special Nature of it is drawn from its Object, *Rea-*

ſon; from the Act *uſing it well*, and from its two great Ends or Deſigns, *viz.* the *Search of Truth*, and the *Communication of it:* Nor can it be juſtly deſcribed and explained in fewer Ideas.

V. If we add a *fifth Rule*, it muſt be that *neither the thing defined, nor a mere ſynonymous Name ſhould make any part of the Definition*, for this would be no Explication of *the Nature of the Thing*; and a ſynonymous Word at beſt could only be a *Definition of the Name.*

Sect. VI.

Obſervations concerning the Definition of Things.

BEfore I part with this Subject I muſt propoſe ſeveral *Obſervations* which relate to the Definition of Things.

1ſt *Obſerv.* There is no need that in *Definitions* we ſhould be confined to *one ſingle Attribute* or *Property*, in order to expreſs the Difference of the Thing defined, for ſometimes the eſſential *Difference* conſiſts in *two* or *three* Ideas or Attributes. So a *Grocer* is a *Man who buys and ſells Sugar and Plumbs and Spices for Gain.* A *Clock* is an *Engine with Weights and Wheels, that ſhews the Hour of the Day both by pointing and ſtriking:* And if I were to define a *Repeating Clock* I muſt add another Property, *viz.* that it alſo *repeats the Hour.* So that the true and primary eſſential Difference of ſome complex Ideas conſiſting in ſeveral diſtinct Properties cannot be well expreſs'd without conjunctive Particles of Speech.

2d *Obſerv.* There is no need that *Definitions* ſhould always be *poſitive*, for ſome Things differ from others merely

merely by a Defect of what others have; as if a *Chair* be defined *a Seat for a single Person with a Back belonging to it*, then a *Stool* is a *Seat for a single Person without a Back*; and a *Form* is a *Seat for several Persons without a Back:* These are *negative* Differences. So *Sin* is a *want of Conformity to the Law of God; Blindness* is a *want of Sight.* A *Vagabond* is a *Person without a Home.* Some Ideas are negative, and their Definitions ought to be so too.

3d *Observ.* Some Things may have two or more *Definitions*, and each of them equally just and good; as a *Mile* is the *Length of eight Furlongs*, or it is the *third part of a League. Eternal* is *that which ever was and ever shall be*; or it is *that which had no Beginning and shall have no End.* * *Man is* usually defined a *rational Animal:* But it may be much better to define him a *Spirit united to an Animal of such a Shape*, or an *Animal of such a peculiar Shape united to a Spirit*, or a *Being composed of such an Animal and a Mind.*

4th *Observ.* Where the *Essences* of Things are evident, and clearly distinct from each other, there we may be more exact and accurate in the *Definitions* of them: But where their *Essences* approach nearer to each other, the *Definition* is more difficult. A *Bird* may be defined a *feathered Animal with Wings*, a *Ship* may be defined a *large hollow Building made to pass over the Sea with Sails:* But if you ask me to define a *Batt*, which is between a *Bird* and a *Beast*, or to define a *Barge* and *Hoy*,

* The common Definition of Man, *viz. a rational Animal*, is very faulty, 1. Because the *Animal* is not *rational*; the Rationality of Man arises from the Mind to which the Animal is united. 2. Because if a Spirit should be united to a *Horse* and make it a rational Being, surely this would not be a *Man:* It is evident therefore that the *peculiar Shape* must enter into the Definition of a *Man* to render it just and perfect; and for want of a full Description thereof all our Definitions are defective.

which are between a *Boat* and a *Ship*, it is much harder to define them, or to adjuſt the Bounds of their Eſſence. This is very evident in all *monſtrous Births* and *irregular Productions of Nature*, as well as in many *Works of Art*, which partake ſo much of *one Species* and ſo much of *another*, that we cannot tell under which *Species* to rank them, or how to determine their *ſpecifick Difference*.

The ſeveral *Species* of Beings are ſeldom preciſely limited in the Nature of Things by any certain and unalterable Bounds: The Eſſences of many Things do not conſiſt *in indiviſibili*, or in one evident indiviſible Point, as ſome have imagined; but by various Degrees they approach nearer to, or differ more from others that are of a Kindred Nature. So (as I have hinted before) in the very middle of each of the Arches of a Rainbow the Colours of *green*, *yellow*, and *red* are ſufficiently diſtinguiſhed; but near the Borders of the ſeveral Arches they run into one another, ſo that you hardly know how to limit the Colours, nor whether to call it *red* or *yellow*, *green*, or *blue*.

5th *Obſerv.* As the *higheſt* or chief *Genus's*, *viz.* *Being* and *Not-Being* can never be defined, becauſe there is no *Genus* ſuperior to them; ſo neither can *ſingular Ideas* or *Individuals* be well defined, becauſe either they have no *eſſential Differences* from other Individuals, or their Differences are not known; and therefore *Individuals* are only to be deſcrib'd by their particular Circumſtances: So King *George* is diſtinguiſh'd from all other Men and other Kings, by deſcribing him as *the firſt King of Great Britain of the Houſe of Brunſwick:* and *Weſtminſter-Hall* is deſcribed by its Situation and its Uſe, *&c.*

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That individual Bodies can hardly have any essential Difference, at least within the Reach of our Knowledge, may be made thus to appear; *Methuselah*, when he was nine hundred and sixty Years *old*, and perhaps worn out with Age and Weakness, was the same Person as when he was in his full Vigour of *Manhood*, or when he was an *Infant* newly born; but how far was his Body the same? who can tell whether there was any Fibre of his Flesh or his Bones that continued the same throughout his whole Life? or who can determine which were those Fibres? The *Ship* in which Sir *Francis Drake* sailed round the World might be new built and refitted so often, that few of the same Timbers remained; and who can say whether it must be call'd the same Ship or no? and what is its essential Difference? How shall we define Sir *Francis Drake*'s Ship, or make a Definition for *Methuselah?*

To this Head belongs that most difficult Question, *What is the Principle of Inviduation?* or what is it that makes any one Thing *the same* as it was sometime before? This is too large and laborious an Enquiry to dwell upon it in this Place: Yet I cannot forbear to mention this Hint, *viz.* Since our own Bodies must rise at the last Day for us to receive Rewards or Punishments in them, there may be perhaps some *original Fibres* of each human Body, some *Stamina Vitæ*, or primeval *Seeds of Life*, which may remain unchanged thro' all the Stages of Life, Death and the Grave; these may become the Springs and Principles of a Resurrection, and sufficient to denominate it the *same Body*. But if there be any such constant and vital Atoms which distinguish every human Body, they are known to God only.

6th *Observ.* Where we cannot find out the *Essence* or *essential Difference* of any *Species* or *Kind* of Beings that we would define, we must content our selves with a Collection of such *chief Parts* or *Properties* of it as may best explain it so far as it is known, and best distinguish it from other Things: So a *Marigold* is a *Flower which hath so many long yellow Leaves round a little Knot of Seeds in the midst with such a peculiar Stalk*, &c. So if we would define *Silver*, we say it is a *white and hard Metal, next in Weight to Gold:* If we would define an *Elder-Tree*, we might say it is *one among the lesser Trees, whose younger Branches are soft and full of Pith, whose Leaves are jagged or indented, and of such a particular Shape, and it bears large Clusters of small black Berries:* So we must define *Water*, *Earth*, *Stone*, *a Lyon*, an *Eagle*, a *Serpent*, and the greatest part of *natural Beings*, by a Collection of those Properties, which according to our Observation distinguish them from all other Things. This is what Mr. *Locke* calls *nominal Essences*, and *nominal Definitions*. And indeed since the *essential Differences* of the various natural Beings or Bodies round about us arise from a peculiar Shape, Size, Motion and Situation of the small Particles of which they are compos'd, and since we have no sufficient Method to inform us what these are, we must be contented with such a *sort of Definition* of the Bodies they compose.

Here note that this sort of *Definition*, which is made up of a mere Collection of the most remarkable Parts or Properties, is call'd an *imperfect Definition*, or a *Description*; whereas the *Definition* is call'd *perfect* when it is compos'd of the essential *Difference* added to the general Nature or *Genus*.

7th *Observ.*

7th *Observ.* The *perfect Definition of any Being* always includes the *Definition of the Name* whereby it is called, for it informs us of the Sense or Meaning of that Word, and shews us what Idea that Word is affixed to: But the *Definition of the Name* does by no means include a *perfect Definition of the Thing*; for as we have said before, a mere synonymous Word, a Negation of the contrary, or the mention of any one or two distinguishing Properties of the Thing may be a sufficient *Definition of the Name.* Yet in those Cases where the essential Difference or Essence of a Thing is unknown, there a *Definition of the Name* by the chief Properties, and a *Description of the Thing* are much the same.

And here I think it necessary to take Notice of one general Sentiment that seems to run thro' that excellent Performance, Mr. *Locke's Essay of Human Understanding*, and that is, "That "the Essences of Things are utterly unknown "to us, and therefore all our Pretences to distin- "guish the Essences of Things can reach no far- "ther than *mere nominal Essences*; or a Collecti- "on of such Properties as we know; to some of "which we affix particular Names, and others "we bundle up, several together, under one "Name: And that all our Attempts to rank Be- "ings into different Kinds of Species's can reach "no farther than to make *mere nominal Species*; "and therefore our Definitions of Things are but "*mere nominal Descriptions* or Definitions of the "Name.

Now that we may do Justice to this *great Author*, we ought to consider that he confines this Sort of Discourse only to the *Essence of simple Ideas*, and to the *Essence of Substances*, as appears evident in the fourth and sixth Chapters of his

Third Book: for he allows the *Names of mixed Modes always to ſignify the real Eſſences of their Species*, Chap. V. and he acknowledges *artificial Things to have diſtinct Species*; and that in the Diſtinction of their Eſſences *there is generally leſs Confuſion and Uncertainty than in natural*, Ch. VI. Sect. 40, 41. tho' it muſt be confeſs'd that he ſcarce makes any Diſtinction between the *Diſinition of the Name* and the *Definition of the thing*, as Ch. IV. and ſometimes the Current of his Diſcourſe decries the *Knowledge of Eſſences* in ſuch general Terms as may juſtly give Occaſion to miſtake.

It muſt be granted, that the Eſſence of moſt of our *ſimple Ideas* and the greateſt part of particular *natural Subſtances* are much unknown to us; and therefore the eſſential Differences of ſenſible Qualities and of the various Kinds of Bodies, (as I have ſaid before) lye beyond the Reach of our Underſtandings: We know not what makes the primary real inward Diſtinction between *Red*, *Green*, *Sweet*, *Sour*, &c. between *Wood*, *Iron*, *Oil*, *Stone*, *Fire*, *Water*, *Fleſh*, *Clay*, in their general Natures, nor do we know what are the inward and prime Diſtinctions between all the particular Kinds or Species in the *Vegetable*, *Animal*, *Mineral*, *Metallick*, or *Liquid* World of Things.

But ſtill there is a very large Field for the Knowledge of the Eſſences of Things, and for the Uſe of *perfect Definitions* amongſt our *complex Ideas*, the *modal Appearances and Changes of Nature*, the *Works of Art*, the *Matters of Science*, and all the Affairs of the *civil*, the *moral* and the *religious Life:* and indeed it is of much more Importance to all Mankind to have a better Acquaintance with the *Works of Art* for their own Livelihood and daily uſe, with the *Affairs of Morality* for their Behaviour

Behaviour in this World, and with the *Matters of Religion*, that they may be prepar'd for the World to come, than to be able to give a perfect Definition of the Works of Nature.

If the particular Essences of Natural Bodies are unknown to us, we may yet be good Philosophers, good Artists, good Neighbours, good Subjects and good Christians without that Knowledge, and we have just Reason to be content.

Now that the Essences of some of the *modal Appearances* and *Changes* in *Nature*, as well as *Things of Art*, *Science* and *Morality* are sufficiently known to us to make *perfect Definitions* of them, will appear by the Specimen of a few Definitions of these Things.

Motion is a Change of Place. *Swiftness* is the passing over a long Space in a short Time. A *natural Day* is the Time of one alternate Revolution of Light and Darkness, or it is the Duration of twenty four Hours. An *Eclipse of the Sun* is a Defect in the Sun's Transmission of Light to us by the Moon interposing. * *Snow* is congealed Vapour. * *Hail* is congeal'd Rain. An * *Island* is a Piece of Land rising above the surrounding Water. An * *Hill* is an elevated Part of the Earth, and a * *Grove* is a Piece of Ground thick set with Trees. An *House* is a Building made to dwell in. A *Cottage* is a mean House in the Country. A *Supper* is that Meal which we make in the Evening. A *Triangle* is a Figure compos'd of three Sides. A *Gallon* is a Measure containing eight Pints. A *Porter* is a Man who carries Burdens for Hire. A

* Note, *Island*, *Hill*, *Grove*, are not defined here in their more *remote and substantial Natures*, (if I may so express it) or as the Matter of them is *Earth*; for in this Sense we know not their Essence, but only as consider'd in their *modal Appearances*, whereby one *part of Earth* is distinguisht from another. The same may be said of *Snow*, *Hail*, &c.

King is the chief Ruler in a Kingdom. *Veracity* is the Conformity of our Words to our Thoughts. *Covetouſneſs* is an exceſſive Love of Money, or other Poſſeſſions. *Killing* is the taking away the Life of an Animal. *Murder* is the unlawful killing of a Man. *Rhetorick* is the Art of ſpeaking in a manner fit to perſuade. *Natural Philoſophy* is the Knowledge of the Properties of Bodies and the various Effects of them, or it is the Knowledge of the various Appearances in Nature and their Cauſes; and *Logick* is the Art of uſing our Reaſon well, *&c.*

Thus you ſee the eſſential Differences of various Beings may be known, and are borrowed from their *Qualities* and *Properties*, their *Cauſes*, *Effects*, *Objects*, *Adjuncts*, *Ends*, &c. and indeed as infinitely various as the *Eſſences* of Things are, their *Definitions* muſt needs have very various Forms.

After all it muſt be confeſs'd, that many Logicians and Philoſophers in the former Ages have made too great a Buſtle about the Exactneſs of their Definitions of Things, and enter'd into long fruitleſs Controverſies and very ridiculous Debates in the ſeveral Sciences about adjuſting the *Logical Formalities* of every Definition; whereas that ſort of Wrangling is now grown very juſtly contemptible, ſince it is agreed that true Learning and the Knowledge of Things depends much more upon a large Acquaintance with their various Properties, Cauſes, Effects, Subject, Object, Ends and Deſigns, than it does upon the formal and ſcholaſtick Niceties of *Genus* and *Difference*.

SECT.

Sect. VII.

Of a compleat Conception of Things.

HAVING dwelt so long upon the first *Rule* to direct our Conceptions, and given an Account of the *Definition* both of Names and *Things* in order to gain *clear and distinct Ideas*, we make haste now to the *second Rule* to guide our Conceptions, and that is, *Conceive of Things compleatly in all their Parts.*

All *Parts* have a Reference to some *Whole:* Now there is an old Distinction which logical Writers make of a *Whole* and its *Parts* into four several Kinds, and it may be proper just to mention them here.

1. There is a *metaphysical Whole*, when the Essence of a Thing is said to consist of two *Parts*, the *Genus* and the *Difference*, *i. e.* the general and the special Nature, which being join'd together make up a *Definition*. This has been the Subject of the foregoing Sections.

2. There is a *mathematical Whole* which is better call'd *integral*, when the several *Parts* which go to make up the Whole are really distinct from one another, and each of them may subsist apart. So the *Head*, the *Limbs* and the *Trunk* are the integral Parts of an animal Body; so *Unites* are the integral Parts of any large *Number*; so these Discourses which I have written concerning *Perception*, *Judgment*, *Reasoning* and *Disposition* are the four integral Parts of *Logick*. This sort of Parts goes to make up the *Compleatness* of any Subject, and this is the chief and most direct Matter of our Discourse in this Section.

3. There

3. There is a *physical* or *essential Whole*, which is usually made to signify and include only the two *essential Parts* of Man, *Body* and *Soul:* But I think the Sense of it may better be altered, or at least enlarged, and so include all the essential Modes, Attributes or Properties which are contain'd in the *Comprehension* of any Idea. This shall be the Subject of Discourse under the *third Rule to direct our Conceptions.*

4. There is a *logical Whole*, which is also call'd an *universal*; and the *Parts* of it are all the particular Ideas to which this universal Nature extends. So a *Genus* is a *Whole* in respect of the several *Species* which are its Parts. So the *Species* is a *Whole*, and all the *Individuals* are the *Parts* of it. This shall be treated of in the *fourth Rule to guide our Conceptions.*

At present we consider an Idea as an *integral Whole*, and our *second Rule* directs us to contemplate it *in all its Parts:* But this can only refer to complex Ideas, for simple Ideas have no Parts.

Sect. VIII.

Of Division, and the Rules of it.

Since our Minds are narrow in their Capacity, and cannot survey the several Parts of any complex Being with one single View, as God sees all Things at once, therefore we must as it were take it to Pieces, and consider of the Parts separately that we may have a more compleat Conception of the Whole. So if I would learn the Nature of a *Watch*, the Workman takes it to pieces and shews me the *Spring*, the *Wheels*, the *Axles*, the *Pinions*, the *Balance*, the *Dial-Plate*, the *Pointer*, the *Case*, &c. and describes each of these Things to

to me apart, together with their Figures and their Uses. If I would know what an *Animal* is, the Anatomist considers the *Head*, the *Trunk*, the *Limbs*, the *Bowels* apart from each other, and gives me distinct Lectures upon each of them. So a *Kingdom* is divided into its several Provinces: A *Book* into its several *Chapters*; and any *Science* is divided according to the several *Subjects* of which it treats.

This is what we properly call the *Division* of an Idea, which is an *Explication of the Whole by its several Parts*, or an *Enumeration of the several Parts* that go to compose any *Whole Idea*, and to render it *compleat*. And I think when Man is divided into *Body* and *Soul*, it properly comes under this Part of the Doctrine of integral *Division*, as well as when the mere *Body* is divided into *Head*, *Trunk* and *Limbs:* This Division is sometimes call'd *Partition*.

When any of the *Parts* of any Idea are yet farther divided in order to a clear Explication of the *Whole*, this is call'd a *Subdivision*; as when a *Year* is divided into *Months*, each *Month* into *Days*, and each *Day* into *Hours*, which may also be farther *subdivided* into *Minutes* and *Seconds*.

It is necessary in order to the full Explication of any Being to consider *each Part*, and the *Properties of it*, distinct *by it self*, as well as *in its Relation* to the Whole: for there are many Properties that belong to the Parts of a Being which cannot properly be ascrib'd to the Whole, tho' these Properties may fit each Part for its proper Station, and as it stands in that Relation to the whole complex Being: as in a *House*, the *Doors* are moveable, the *Rooms* square, the *Cielings* white, the *Windows* transparent, yet the *House* is neither moveable, nor square, nor white, nor transparent.

The

The ſpecial Rules of a good Diviſion are theſe.

1. Rule. *Each Part ſingly taken muſt contain leſs than the whole, but all the Parts taken collectively (or together) muſt contain neither more nor leſs than the whole.* Therefore if in diſcourſing of a *Tree* you divide it into the *Trunk* and *Leaves* it is an imperfect Diviſion, becauſe the *Root* and the *Branches* are needful to make up the Whole. So *Logick* would be ill divided into *Apprehenſion*, *Judgment* and *Reaſoning*, for *Method* is a conſiderable Part of the Art which teaches us to uſe our Reaſon right, and ſhould by no Means be omitted.

Upon this Account, in every Diviſion wherein we deſign a perfect exactneſs, it is neceſſary to examine the whole Idea with Diligence, leſt we omit any Part of it thro' want of Care; tho' in ſome Caſes it is not poſſible, and in others it is not neceſſary that we ſhould deſcend to the minuteſt Parts.

2. Rule. *In all Diviſions we ſhould firſt conſider the larger and more immediate Parts of the Subject, and not divide it at once into the more minute and remote Parts.* It would by no means be proper to divide a *Kingdom* firſt into *Streets*, and *Lanes*, and *Fields*, but it muſt be firſt divided into *Provinces* or *Counties*, then thoſe *Counties* may be divided into *Towns*, *Villages*, *Fields*, &c. and the *Towns* into *Streets*, and *Lanes*.

3. Rule. *The ſeveral Parts of a Diviſion ought to be oppoſite*, i. e. *one Part ought not to contain another.* It would be a ridiculous Diviſion of an *Animal* into *Head*, *Limbs*, *Body* and *Brain*, for the *Brains* are contain'd in the *Head*.

Yet

Yet here it must be noted, that sometimes the Subjects of any Treatise, or the Objects of a particular Science may be properly and necessarily so divided, that the second may include the first, and the third may include the first and second, without offending against this Rule, because in the second or following Parts of the Science or Discourse, these Objects are not consider'd in the same manner as in the first; as for Instance, *Geometry* divides its Objects into *Lines*, *Surfaces* and *Solids:* Now tho' a *Line* be contain'd in a *Surface* or a *Solid*, yet it is not consider'd in them separate and alone, or as a *mere Line*, as it is in the first Part of *Geometry* which treats of *Lines*. So *Logick* is rightly divided into *Conception*, *Judgment*, *Reasoning* and *Method*; for tho' *Ideas* or *Conceptions* are contain'd in the following Parts of *Logick*, yet they are not there treated of as *separate Ideas*, which are the proper Subject of the first Part.

4. Rule. *Let not Subdivisions be too numerous without Necessity:* for it is better many Times to distinguish more Parts at once if the Subject will bear it, than to mince the Discourse by excessive dividing and subdividing. It is preferable therefore in a Treatise of *Geography* to say that in a *City* we will consider its *Walls*, its *Gates*, its *Buildings*, its *Streets* and *Lanes*, than to divide it formally first into the *encompassing* and the *encompassed* Parts; the encompassing Parts are the *Walls* and *Gates*; the encompassed Part includes the *Ways* and the *Buildings*; the Ways are the *Streets* and the *Lanes*; Buildings consist of the *Foundations* and the *Superstructure*, &c.

Too

Too great a Number of Subdiviſions has been affected by ſome Perſons in Sermons, Treatiſes, Inſtructions, *&c.* under Pretence of greater Accuracy: But this ſort of Subtilties hath often given greater Confuſion to the Underſtanding, and ſometimes more Difficulty to the Memory. In theſe Caſes it is only a good Judgment can determine what *Subdiviſions* are needful.

5. Rule. *Divide every Subject according to the ſpecial Deſign you have in View.* One Idea or Subject may be divided in very different Manners according to the different Purpoſes we have in diſcourſing of it. So if a *Printer* were to conſider the ſeveral Parts of a *Book*, he muſt divide it into *Sheets*, the *Sheets* into *Pages*, the *Pages* into *Lines*, and the *Lines* into *Letters*. But a *Grammarian* divides a *Book* into *Periods*, *Sentences* and *Words*, or Parts of Speech, as *Noun*, *Pronoun*, *Verb*, &c. A *Logician* conſiders a *Book* as divided into *Chapters*, *Sections*, *Arguments*, *Propoſitions*, *Ideas*, and with the Help of *Ontology*, he divides the *Propoſitions* into *Subject*, *Object*, *Property*, *Relation*, *Action*, *Paſſion*, *Cauſe*, *Effect*, &c. But it would be very ridiculous for a *Logician* to divide a *Book* into *Sheets*, *Pages*, and *Lines*; or for a *Printer* to divide it into *Nouns* and *Pronouns*, or into *Propoſitions*, *Ideas*, *Properties*, or *Cauſes*.

6. Rule. *In all your Diviſions obſerve with greateſt Exactneſs the Nature of Things.* And here I am conſtrain'd to make a Subdiviſion of this Rule into two very neceſſary Particulars.

(1.) *Let the Parts of your Diviſion be ſuch as are properly diſtinguiſhed in Nature.* Do not divide aſunder thoſe Parts of the Idea which are in-

timately united in Nature, nor unite those Things into one Part which Nature has evidently disjoined: Thus it would be very improper in treating of an *Animal Body* to divide it into the *superior* and *inferior Halves*; for it would be hard to say how much belongs by Nature to the *inferior* Half, and how much to the *superior*. Much more improper would it be still to divide the *Animal* into the *right Hand Parts* and *left Hand Parts*, which would bring greater Confusion. This would be as unnatural as a Man who should cleave a *Hazel Nut* in Halves thro' the *Husk*, the *Shell* and the *Kernel* at once, and say a *Nut is divided into these two Parts*; whereas Nature leads plainly to the threefold Distinction of *Husk*, *Shell* and *Kernel*.

(2.) *Do not affect Duplicities nor Triplicities, nor any certain Number of Parts in your Division of Things*; for we know of no such certain Number of Parts which *God the Creator* has observed in forming all the Varieties of his Creatures, nor is there any uniform determined Number of Parts in the various Subjects of human *Art* or *Science*; yet some Persons have disturbed the Order of Nature and abused their Readers by an Affectation of *Dichotomies Trichotomies*, *Sevens*, *Twelves*, &c. Let the *Nature* of the Subject, considered together with the *Design* which you have in view, always determine the Number of Parts into which you divide it.

After all, it must be confess'd that an intimate Knowledge of Things and a judicious Observation will assist in the Business of *Division*, as well as of *Definition*, better than too nice and curious an Attention to the mere Formalities of logical Writers, without a real Acquaintance with Things.

Sect. IX.

Of a comprehenſive Conception of Things, and of Abſtraction.

THE *third Rule* to direct our Conception requires us to *conceive of Things comprehenſively.* As we muſt ſurvey an Object in all its *Parts* to obtain a *compleat* Idea of it, ſo we muſt conſider it in all its *Modes*, *Attributes*, *Properties* and *Relations*, in order to obtain a *comprehenſive* Conception of it.

The *Comprehenſion* of an Idea, as it was explain'd under the Doctrine of Univerſals, includes only the *eſſential Modes* or *Attributes* of that *Idea*; but in this Place the Word is taken in a larger Senſe, and implies alſo the various *occaſional Properties*, *accidental Modes* and *Relations*.

The Neceſſity of this Rule is founded upon the ſame Reaſon as the former, *viz.* That our Minds are narrow and ſcanty in their Capacities, and as they are not able to conſider all the *Parts* of a complex Idea *at once*, ſo neither can they *at once* contemplate all the different *Attributes* and *Circumſtances* of it: We muſt therefore conſider Things *ſucceſſively* and *gradually* in their various Appearances and Circumſtances: As our natural Eye cannot at once behold the *ſix Sides of a Dye* or *Cube*, nor take Cognizance of all the *Points* that are mark'd on them, and therefore we turn up the Sides ſucceſſively, and thus ſurvey and number the Points that are mark'd on *each Side*, that we may know the whole.

In

In order to a *comprehensive* View of any Idea, we must first consider whether the Object of it has an *Existence* as well as an *Essence*; whether it be a *simple* or a *complex Idea*; whether it be a *Substance* or a *Mode*; if it be a *Substance*, then we must enquire what are the *essential Modes* of it, which are necessary to its Nature, and what are those *Properties* or *Accidents* of it, which belong to it occasionally, or as it is placed in some particular Circumstances: We must view it in its *internal* and *absolute* Modes, and observe it in those various *external Relations* in which it stands to other Beings: We must consider it in its *Powers* and *Capacities* either to *do* or *suffer:* We must trace it up to its various *Causes*, whether supream or subordinate. We must descend to the Variety of its *Effects*, and take notice of the several *Ends* and *Designs* which are to be attained by it. We must conceive of it as it is either an *Object* or a *Subject*; what are the Things that are *akin* to it, and what are the *Opposites* or *Contraries* of it; for many Things are to be known both by their *contrary* and their *kindred* Ideas.

If the thing we discourse of be a mere *Mode*, we must enquire whether it belong to *Spirits* or *Bodies*; whether it be a *physical* or *moral* Mode: If *moral*, then we must consider its Relation to *God*, to our *selves*, to our *Neighbours*; its reference to *this Life* or the *Life to come*. If it be a *Virtue*, we must seek what are the *Principles* of it, what are the *Rules* of it, what are the *Tendencies* of it, and what are the *false Virtues* that counterfeit it, and what are the *real Vices* that oppose it, what are the *Evils* which attend the *Neglect* of it, what are the *Rewards* of the *Practice* of it both *here* and *hereafter*.

If the Subject be *historical* or a *Matter of Fact*, we may then enquire whether the Action was *done at all*; whether it was done *in such a manner*, or by *such Persons* as is reported; *at what Time* it was done; *in what Place*; by *what Motive*, and for *what Design*; what is the *Evidence* of the Fact; *who are the Witnesses*; what is their *Character* and *Credibility*; what *Signs* there are of such a Fact; what *concurrent Circumstances* which may either support the Truth of it, or render it doubtful.

In order to make due Enquiries into all these and many other Particulars which go towards the *compleat* and *comprehensive* Idea of any Being, the Science of *Ontology* is exceeding necessary. This is what was wont to be call'd the *first Part of Metaphysicks* in the *Peripatetick* Schools. It treats of *Being in its most general Nature, and of all its Affections* and *Relations*. I confess the old *popish Schoolmen* have mingled a Number of useless Subtilties with this Science; they have exhausted their own Spirits, and the Spirits of their Readers in many laborious and intricate Trifles, and some of their Writings have been fruitful of *Names without Ideas*, which hath done much Injury to the sacred Study of Divinity. Upon this Account many of the Moderns have most unjustly abandoned the whole Science at once, and thrown Abundance of Contempt and Raillery upon the very Name of *Metaphysicks*; but this Contempt and Censure is very unreasonable, for this Science separated from some *Aristotelian* Fooleries and *scholastic* Subtilties is so necessary to a distinct Conception, solid Judgment, and just Reasoning on many Subjects, that sometimes it is introduced as a *Part of Logick*, and not without Reason. And those who utterly despise and ridicule it, either betray

betray their own Ignorance, or will be suppos'd to make their Wit and Banter a Refuge and Excuse for their own Laziness. Yet thus much I would add, that the later Writers of *Ontology* are generally the best on this account, because they have left out much of the antient *Jargon*.

Here let it be noted that it is neither useful, necessary, or possible to run thro' *all the Modes*, *Circumstances* and *Relations* of every Subject we take in Hand; but in *Ontology* we enumerate a great Variety of them, that so a judicious Mind may choose what are those *Circumstances*, *Relations* and *Properties* of any Subject, which are most necessary to the present Design of him that speaks or writes, either to explain, to illustrate, or to prove the Point.

As we arrive at the *compleat* Knowledge of an Idea in all its *Parts*, by that Act of the Mind which is call'd *Division*, so we come to a *comprehensive* Conception of a Thing in its several *Properties* and *Relations*, by that Act of the Mind which is call'd *Abstraction*, i. e. we consider each single Relation or Property of the Subject alone, and thus we do as it were withdraw and separate it in our Minds both from the Subject it self, as well as from other Properties and Relations in order to make a fuller Observation of it.

This Act of *Abstraction* is said to be twofold, either *Precisive* or *Negative*.

Precisive Abstraction is when we consider those Things apart which cannot really exist apart; as when we consider a *Mode* without considering its *Substance* and *Subject*, or *one essential Mode* without *another*. *Negative Abstraction* is when we consider one Thing separate from another, which may also exist without it; as when we conceive

of a *Subject* without conceiving of its *accidental Modes* or *Relations*; or when we conceive of *one Accident* without thinking of *another*; if I think of *reading* or *writing* without the expreſs Idea of ſome *Man*, this is *preciſive Abſtraction*; or if I think of the *Attraction of Iron*, without the expreſs Idea of ſome particular *magnetick Body*. But when I think of a *Needle* without an Idea of its *Sharpneſs*, this is *negative Abſtraction*; and it is the ſame when I think of its *Sharpneſs* without conſidering its *Length*.

Sect. X.

Of the extenſive Conception of Things, and *of Diſtribution.*

As the *Compleatneſs* of an Idea refers to the ſeveral *Parts* that compoſe it, and the *Comprehenſion* of an Idea includes its various *Properties*, ſo the *Extenſion* of an Idea denotes the various *Sorts* or *Kinds* of *Beings* to which the ſame Idea belongs: And if we would be fully acquainted with a Subject, we muſt obſerve

This *fourth Rule* to direct our Conceptions, *viz. Conceive of Things in all their Extenſion*, i. e. we muſt ſearch out the various *Species* or *ſpecial Natures* which are contain'd under it as a *Genus* or *general Nature*. If we would know the Nature of an *Animal* perfectly, we muſt take Cognizance of *Beaſts*, *Birds*, *Fiſhes* and *Inſects*, as well as *Men*, all which are contain'd under the general Nature and Name of *Animal*.

As

As an *integral Whole* is distinguish'd into its several Parts by *Division*, so the Word *Distribution* is most properly us'd when we distinguish an *universal Whole* into its several Kinds or Species: And perhaps it had been better if this Word had been always confin'd to this Signification, tho' it must be confest, that we frequently speak of the *Division* of an Idea into its several *Kinds*, as well as into its several *Parts*.

The Rules of a good Distribution are much the same with those which we have before applied to *Division*, which may be just repeated again in the briefest manner, in order to give Examples to them.

I. *Rule.* Each Part *singly* taken must contain less than the Whole, but all the Parts taken *collectively* or *together*, must contain neither more nor less than the Whole; or as *Logicians* sometimes express it, the *Parts of the Division ought to exhaust the whole Thing which is divided.* So *Medicine* is justly distributed into *Prophylactick*, or the Art of preserving Health; and *Therapeutick*, or the Art of restoring Health; for there is no other sort of Medicine beside these two. But *Men* are not well distributed into *tall* or *short*, for there are some of a *middle Stature.*

II. *Rule.* In all *Distributions* we should first consider the larger and more immediate Kinds or Species or Ranks of Being, and not divide a Thing at once into the more minute and remote. A *Genus* should not at once be divided into *Individuals*, or even into the *lowest Species*, if there be a *Species superior.* Thus it would be very improper to divide *Animal* into *Trout*, *Lobster*, *Eel*, *Dog*, *Bear*, *Eagle*, *Dove*, *Worm* and *Butterfly*, for

theſe are inferior Kinds; whereas *Animal* ought firſt to be diſtributed into *Man*, *Beaſt*, *Bird*, *Fiſh*, *Inſect*: And then Beaſt ſhould be diſtributed into *Dog*, *Bear*, &c. *Bird* into *Eagle*, *Dove*, &c. *Fiſh* into *Trout*, *Eel*, *Lobſter*, &c.

It is irregular alſo to join any inferior Species in in the ſame Rank or Order with the Superior; as if we would diſtinguiſh *Animals* into *Birds*, *Bears* and *Oyſters*, &c. it would be a ridiculous Diſtribution.

III. *Rule.* The ſeveral Parts of a Diſtribution ought to be oppoſite; that is, one Species or Claſs of Beings in the ſame Rank of Diviſion ought not to contain or include another; ſo *Men* ought not to be divided into the *Rich*, the *Poor*, the *Learned* and the *Tall*; for *poor Men* may be both *learned* and *tall*, and ſo may the *rich*.

But it will be objected, are not *animated Bodies* rightly diſtributed into *Vegetative* and *Animal*, or (as they are uſually called) *Senſitive?* Now the *Senſitive* contains the *Vegetative* Nature in it, for *Animals* grow as well as *Plants*. I anſwer that in this and all ſuch Diſtributions the Word *Vegetative* ſignifies *merely Vegetative*; and in this Senſe *Vegetative* will be ſufficiently oppoſite to *Animal*, for it cannot be ſaid of an *Animal* that it contains *mere Vegetation* in the Idea of it.

IV. *Rule.* Let not Subdiviſions be too numerous without Neceſſity; therefore I think *Quantity* is better diſtinguiſhed at once into a *Line*, a *Surface* and a *Solid*, than to ſay as *Ramus* does, that *Quantity is either a Line, or a Thing lined*; and *a Thing lined is either a Surface or a Solid.*

V. *Rule*

V. *Rule* Distribute every Subject according to the special Design you have in View, so far as is necessary or useful to your present Enquiry. Thus a *Politician* distributes *Mankind* according to their civil Characters, into the *Rulers* and the *Ruled*; and a *Physician* divides them into the *Sick* or the *Healthy*; but a *Divine* distributes them into *Turks*, *Heathens*, *Jews*, or *Christians*.

Here Note, that it is a very useless Thing to distribute any Idea into such Kinds or Members as have no different Properties to be spoken of, as it is mere trifling to divide *right Angles* into such *whose Legs are equal, and whose Legs are unequal*, for as to the mere *right Angle* they have no different Properties.

VI *Rule*. In all your Distributions observe the Nature of Things with great Exactness; and don't affect any particular Form of Distribution, as some Persons have done, by dividing *every Genus* into *two Species*, or into *three Species*; whereas Nature is infinitely various, and human Affairs and human Sciences have as great a Variety, nor is there any one Form of Distribution that will exactly suit with all Subjects.

Note, It is to this Doctrine of *Distribution of a Genus into its several Species*, we must also refer the Distribution of a *Cause* according to its several *Effects*, as some *Medicines are heating*, *some are cooling*; or an *Effect* when it is distinguish'd by its *Causes*, as *Faith is either built upon divine Testimony or human*. It is to this Head we refer particular *artificial Bodies*, when they are distinguished according to the *Matter* they are made of, as a *Statue is either of Brass*, *of Marble*, *or Wood*, &c. and any other *Beings* when they are distin-

guiſh'd according to their *End* and *Deſign*, as the *Furniture* of *Body or Mind is either for Ornament or Uſe.* To this Head alſo we refer *Subjects* when they are divided according to their *Modes* or *Accidents*; as *Men are either merry, or grave, or ſad*; and *Modes* when they are divided by their *Subjects*, as *Diſtempers belong to the Fluids, or to the ſolid Parts of the Animal.*

It is alſo to this Place we reduce the *Propoſals of a Difficulty under its various Caſes*, whether it be in Speculation or Practice: As to ſhew the Reaſon of *the Sun-beams burning Wood, whether it be done by a convex Glaſs or a concave*; or to ſhew the *Conſtruction* and *Menſuration of Triangles*, whether you have two Angles and a Side given, or two Sides and an Angle, or only three Sides. Here it is neceſſary to diſtribute or *divide a Difficulty into all its Caſes*, in order to gain a perfect Knowledge of the Subject you contemplate.

It might be obſerved here, that *Logicians* have ſometimes given a *Mark* or *Sign* to diſtinguiſh when it is an *integral Whole*, that is divided into its *Parts* or *Members*, or when it is a *Genus*, an *univerſal Whole*, that is diſtributed into its *Species* and *Individuals.* The Rule they give is this: Whenſoever the whole Idea can be directly and properly affirm'd of each Part, as a *Bird is an Animal*, a *Fiſh is an Animal*, *Bucephalus is a Horſe*, *Peter is a Man*, then it is a Diſtribution of a *Genus* into its *Species*, or a *Species* into its *Individuals:* But when the whole cannot be thus directly affirmed concerning every Part, then it is a Diviſion of an *integral* into its ſeveral *Species* or *Members*; as we cannot ſay the *Head*, the *Breaſt*, the *Hand* or the *Foot is an Animal*; but we ſay *the Head is a Part of the Animal*, and the *Foot is* another *Part.*

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This Rule may hold true generally in corporeal Beings, or perhaps in all Substances: But when we say the *Fear of God is Wisdom, and so is human Civility: Criticism is true Learning, and so is Philosophy: To execute a Murderer is Justice, and to save and defend the Innocent is Justice too:* In these Cases it is not so easily determin'd, whether an integral Whole be divided into its Parts, or an universal into its Species: For the *Fear of God* may be call'd either one *Part*, or one *Kind* of *Wisdom: Criticism* is one *Part*, or one *Kind* of *Learning:* And the *Execution of a Murderer* may be call'd a *Species* of *Justice*, as well as a *Part* of it. Nor indeed is it a Matter of great Importance to determine this Controversy.

Sect. XI.

Of an orderly Conception of Things.

THE *last Rule* to direct our Conceptions, is, that *we should rank and place them in a proper Method and just Order.* This is of necessary Use to prevent Confusion; for as a *Trader* who never places his Goods in his Shop or Warehouse in a regular Order, nor keeps the Accounts of his buying and selling, paying and receiving in a just Method, is in utmost Danger of plunging all his Affairs into Confusion and Ruin; so a *Student* who is in the Search of Truth, or an *Author* or *Teacher* who communicates Knowledge to others, will very much obstruct his Design, and confound his own Mind or the Mind of his Hearers, unless he range his Ideas in just Order.

If we would therefore become successful Learners or Teachers, we must not conceive of Things in a *confused Heap*, but dispose our Ideas in some *certain Method*, which may be most easy and useful

ful both for the Understanding and Memory; and be sure as much as may be *to follow the Nature of Things*, for which many Rules might be given, *viz.*

1. Conceive as much as you can of the *Essentials* of any Subject, before you consider its *Accidentals*.

2. Survey first the general *Parts and Properties* of any Subject, before you extend your Thoughts to discourse of the particular *Kinds* or *Species* of it.

3. Contemplate Things first in their own *simple Natures*, and afterward view them in *Composition* with other Things; unless it be your present Purpose to take a *compound Being* to pieces, in order to find out or to shew the Nature of it by searching and discovering of what *Simples* it is composed.

4. Consider the *absolute* Modes or Affections of any Being as it is in itself, before you proceed to consider it *relatively*, or to survey the various *Relations* in which it stands to other Beings, *&c.*

Note, These Rules chiefly belong to the Method of Instruction which the Learned call *Synthetick*.

But in the Regulation of our Ideas there is seldom an absolute Necessity that we should place them in this or the other particular Method: It is possible in some Cases that many Methods may be equally good, that is, may equally assist the Understanding and the Memory: To frame a Method exquisitely accurate, according to the strict Nature of Things, and to maintain this Accuracy from the Beginning to the End of a Treatise, is a most rare and difficult Thing, if not impossible. But a larger Account of *Method* would be

be very improper in this Place, lest we anticipate what belongs to the *fourth Part of Logick*.

Sect. XII.

These five Rules of Conception exemplified.

IT may be useful here to give a Specimen of the *five special Rules to direct our Conceptions*, which have been the chief Subject of this long Chapter, and represent them practically in one View,

Suppose the Theme of our Discourse were the *Passions of the Mind*.

1st, To gain a *clear* and *distinct* Idea of *Passion*, we must *define* both the *Name* and the *Thing*.

To begin with the *Definition of the Name*; we are not here to understand the Word *Passion* in its vulgar and most limited Sense, as it signifies merely *Anger* or *Fury*; nor do we take it in its most extensive philosophical Sense, for the *sustaining the Action* of an *Agent*; but in the more limited philosophical Sense, *Passions* signify the *various Affections of the Mind*, such as *Admiration*, *Love*, or *Hatred*; this is the Definition of the Name.

We proceed to the *Definition of the Thing*. *Passion* is defined a *Sensation of some special Commotion in animal Nature, occasioned by the Mind's Perception of some Object suited to excite that Commotion.* * Here the *Genus* or general Nature of *Passion* is a *Sen-*

* Since this was written I have published a short Treatise of the *Passions*, wherein I have so far varied from this Definition as to call them *Sensible Commotions of our whole Nature, both Soul and Body, occasion'd by the Mind's Perception of some Object*, &c. I made this Alteration in the Description of the Passions in that Book chiefly to include in a more Explicit manner the Passions of *Desire* and *Aversion* which are Acts of *Volition* rather than *Sensations*. Yet since some Commotions of animal Nature attend all the Passions, and since there is always a Sensation of these Commotions, I shall not change the Definition I have written here: For this will agree to all the Passions whether they include any Act of Volition or not; Nor indeed is the Matter of any great Importance. Nov. 17. 1728.

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ſation of ſome ſpecial Commotion in animal Nature; and herein it agrees with Hunger, Thirſt, Pain, *&c.* The *eſſential Difference* of it is, that this *Commotion ariſes from a Thought or Perception of the Mind*, and hereby it is diſtinguiſhed from Hunger, Thirſt, or Pain.

2dly, We muſt conceive of it *compleatly*, or ſurvey the ſeveral *Parts* that compoſe it. Theſe are (1.) *The Mind's Perception of ſome Object.* (2.) The *conſequent Ruffle or ſpecial Commotion of the Nerves, and Blood, and animal Spirits.* And (3.) *The Senſation of this inward Commotion.*

3dly, We muſt conſider it *comprehenſively* in its various *Properties.* The moſt eſſential Attributes that make up its Nature have been already mentioned under the foregoing Heads. Some of the moſt conſiderable Properties that remain are theſe, *viz.* That *Paſſion belongs to all Mankind*, in greater or leſſer Degrees: *It is not conſtantly preſent with us, but upon ſome certain Occaſions:* It is *appointed by our Creator for various uſeful Ends and Purpoſes*, viz. to give us Vigour in the Purſuit of what is good and agreeable to us, or in the Avoidance of what is hurtful: *It is very proper for our State of Trial in this World: It is not utterly to be rooted out of our Nature, but to be moderated and governed according to Rules of Virtue and Religion*, &c.

4thly, We muſt take Cognizance of the various *Kinds* of it, which is call'd an *extenſive Conception* of it. If the Object which the Mind perceives be very *uncommon*, it excites the Paſſion of *Admiration.* If the Object appear *agreeable* it raiſes *Love:* If the agreeable Object be *abſent* and *attainable* it is *Deſire:* If likely to be obtain'd, it excites *Hope:* If *unattainable*, *Deſpair:* If it be *preſent* and *poſſeſt*, it is the Paſſion of *Joy:* If *loſt*, it excites *Sorrow.* If the Object be *diſagreeable*,

it

it causes in general *Hatred* or *Aversion:* If it be *absent* and yet we are in *Danger* of it, it raises our *Fear:* If it be *present*, it is *Sorrow* and *Sadness*, &c.

5thly, All these Things and many more which go to compose a Treatise on this Subject must be placed in their *proper Order:* A slight Specimen of which is exhibited in this short Account of *Passion*, and which that admirable Author *Descartes* has treated of at large; tho' for want of sufficient Experiments and Observations in natural Philosophy, there are some few Mistakes in his Account of animal Nature.

Sect. XIII.

An illustration of these five Rules by Similitudes.

THUS we have brought the first Part of *Logick* to a Conclusion: And it may not be improper here to represent its Excellencies (so far as we have gone) by general Hints of its *chief Design* and Use, as well as by a various *Comparison* of it to those Instruments which Mankind have invented for their several Conveniences and Improvements.

The *Design of Logick* is not to furnish us with the perceiving Faculty, but only to *direct* and assist us in the Use of it: It doth not give us the Objects of our Ideas, but only *casts such a Light* on those Objects which Nature furnishes us with, that they may be the more clearly and distinctly known: It doth not add new Parts or Properties to Things, but it *discovers* the various Parts, Properties, Relations and Dependencies of one Thing upon another, and by *ranking all Things* under *general* and *special* Heads, it renders the Nature, or any of the Properties, Powers, and Uses of a thing

more eaſy to be found out, when we ſeek in what Rank of Beings it lies, and wherein it agrees with, and wherein it differs from others.

If any *Compariſons* would illuſtrate this, it may be thus repreſented.

I. When Logick aſſiſts us to attain a *clear and diſtinct* Conception of the Nature of Things by *Definition*, it is like thoſe *Glaſſes* whereby we behold ſuch Objects diſtinctly, as by Reaſon of their Smallneſs or their great Diſtance appear in Confuſion to the naked Eye: So the *Teleſcope* diſcovers to us diſtant Wonders in the Heavens, and ſhews the *milky Way*, and the *bright cloudy Spots* in a very dark Skie to be a Collection of little Stars, which the Eye unaſſiſted beholds in mingled Confuſion. So when Bodies are too ſmall for our Sight to ſurvey them diſtinctly, then the *Microſcope* is at Hand for our Aſſiſtance, to ſhew us all the *Limbs* and *Features of the moſt minute Animals*, with great Clearneſs and Diſtinction.

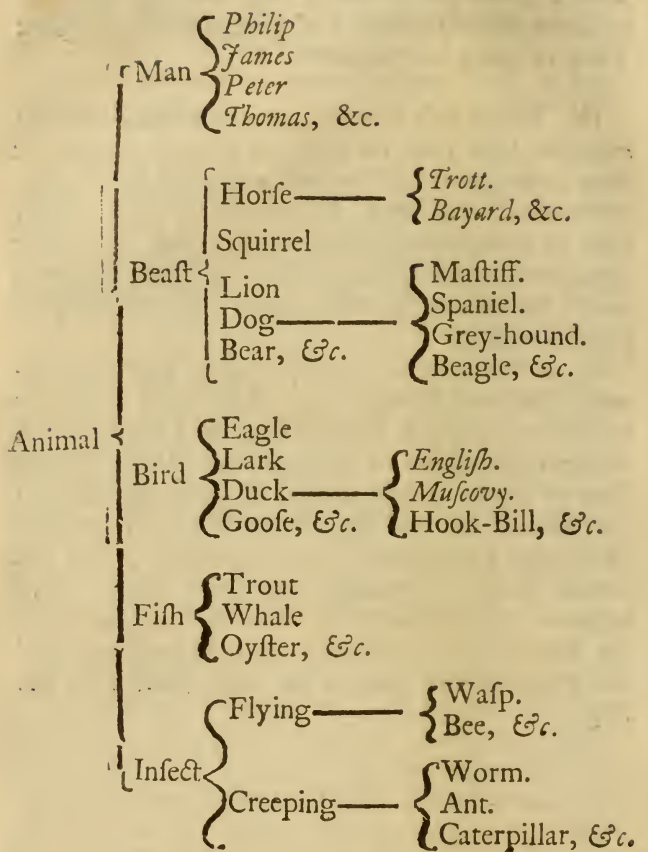
II. When we are taught by Logick to view a Thing *compleatly* in all its *Parts* by the Help of *Diviſion*, it has the Uſe of an *anatomical Knife*, which diſſects an animal Body, and ſeparates the *Veins*, *Arteries*, *Nerves*, *Muſcles*, *Membranes*, &c. and ſhews us the ſeveral Parts which go to the Compoſition of a compleat Animal.

III. When Logick inſtructs us to ſurvey an Object *comprehenſively* in all the *Modes*, *Properties*, *Relations*, *Faces* and *Appearances* of it, it is of the ſame Uſe as a *terreſtrial Globe*, which turning round on its Axis, repreſents to us all the variety of *Lands*, and *Seas*, *Kingdoms* and *Nations* on the Surface of the Earth in a very ſhort Succeſſion of Time,

Time, shews the Situation and various Relation of them to each other, and gives a comprehensive View of them in Miniature.

IV. When this Art teaches us to *distribute* any *extensive* Idea into its different *Kinds* or *Species*, it may be compared to the *prismatick Glass*, that receives the Sun-Beams or Rays of Light, which seem to be uniform when falling upon it, but it separates and distributes them into their different Kinds and Colours, and ranks them in their proper Succession.

Or if we descend to *Subdivisions* and subordinate Ranks of Being, then *Distribution* may also be said to form the Resemblance of a *natural Tree*, wherein the *Genus* or general Idea stands for the *Root* or *Stock*, and the several *Kinds* or *Species*, and *Individuals*, are distributed abroad, and represented in their Dependence and Connection, like the several *Boughs*, *Branches*, and *lesser Shoots*. For Instance, let *Animal* be the *Root* of a logical Tree, the Resemblance is seen by mere Inspection, tho' the Root be not placed at the bottom of the Page.



The ſame Similitude will ſerve alſo to illuſtrate the *Diviſion* and *Subdiviſion* of an *integral Whole*, into its ſeveral Parts.

When Logick directs us to place all our Ideas in a *proper Method*, moſt convenient both for Inſtruction and Memory, it doth the ſame Service as

as the *Cases of well contrived Shelves in a large Library* wherein *Folio's*, *Quarto's*, *Octavo's*, and *lesser Volumes*, are disposed in such exact Order under the particular Heads of *Divinity*, *History*, *Mathematicks*, *antient* and *miscellaneous* Learning, *&c.* that the Student knows where to find every Book, and has them all as it were within his Command at once, because of the exact Order wherein they are placed.

The Man who has such Assistances as these at Hand, in order to manage his *Conceptions* and regulate his *Ideas*, is well prepared to improve his Knowledge, and to *join these Ideas together* in a regular manner by *Judgment*, which is the second Operation of the Mind, and will be the Subject of the second Part of Logick.

THE SECOND PART OF LOGICK.

Of Judgment and Propoſition.

WHEN the Mind has got Acquaintance with Things by framing *Ideas* of them, it proceeds to the next Operation, and that is, to compare theſe Ideas together, and to join them by *Affirmation*, or disjoin them by *Negation*, according as we find them to agree or diſagree. This Act of the Mind is called *Judgment*; as when we have by Perception obtained the Ideas of *Plato*, a *Philoſopher*, *Man*, *Innocent*, we form theſe Judgments; *Plato was a Philoſopher*; *no Man is innocent.*

Some Writers have aſſerted, that *Judgment* conſiſts in a *mere Perception of the Agreement or Diſagreement of Ideas.* But I rather think there is an Act of the Will (at leaſt in moſt Caſes) neceſſary to form a *Judgment*; for tho' we do perceive, or think we perceive Ideas to agree or diſagree, yet we may ſometimes *refrain from judging* or aſſenting to the Perception, for fear leſt the Perception ſhould

not

not be sufficiently clear, and we should be mistaken: And I am well assured at other Times, that there are Multitudes of *Judgments formed*, and a firm Assent given to Ideas joined or disjoined, before there is any clear Perception whether they agree or disagree; and this is the Reason of so many *false Judgments* or Mistakes among Men. Both these Practices are a Proof that *Judgment has something of the Will in it*, and does not merely consist in *Perception*, since we sometimes judge (tho' unhappily) without perceiving, and sometimes we perceive without immediate judging.

As an *Idea* is the Result of our *Conception* or *Apprehension*, so a *Proposition* is the Effect of *Judgment*. The foregoing Sentences which are Examples of the Act of Judgment are properly called *Propositions*. *Plato is a Philosopher*, &c.

Here let us consider,

1. *The general Nature of a* Proposition, *and the Parts of which it is composed.*

2. *The various Divisions or Kinds of* Propositions.

3. *The Springs of false Judgment, or the Doctrine of Prejudices.*

4. *General Directions to assist us in judging aright.*

5. *Special Rules to direct us in judging particular Objects.*

CHAP. I.

Of the Nature of a Propoſition, and its ſeveral Parts.

A *Propoſition* is a Sentence wherein two or more *Ideas* or *Terms* are join'd or disjoin'd by one Affirmation or Negation, as *Plato was a Philoſopher: Every Angle is formed by two Lines meeting: No Man living on Earth can be compleatly happy.* When there are never ſo many Ideas or Terms in the Sentence, yet if they are joined or disjoined merely by one ſingle Affirmation or Negation, they are properly call'd but *one Propoſition*, tho' they may be reſolved into ſeveral Propoſitions which are implied therein, as will appear hereafter.

In deſcribing a *Propoſition*, I uſe the Word *Terms* as well as *Ideas*, becauſe when mere Ideas are join'd in the Mind without Words, it is rather call'd a *Judgment*; but when clothed with Words, it is called a *Propoſition*, even tho' it be in the Mind only, as well as when it is expreſt by ſpeaking or writing.

There are three Things which go to the Nature and Conſtitution of a Propoſition (*viz.*) The *Subject*, the *Predicate* and the *Copula*.

The *Subject* of a Propoſition is that concerning which any thing is affirmed or denied: So *Plato*, *Angle*, *Man living on Earth*, are the Subjects of the foregoing Propoſitions.

The *Predicate* is that which is affirmed or denied of the Subject; ſo *Philoſopher* is the Predicate of the firſt Propoſition; *formed by two Lines meeting*, is the Predicate of the ſecond; *capable of being*

ing compleatly happy, is the proper Predicate of the third.

The *Subject* and *Predicate* of a Proposition taken together are called the *Matter* of it; for these are the *Materials* of which it is made.

The *Copula* is the *Form* of a Proposition; it represents the Act of the Mind affirming or denying, and it is expreſt by the Words, *am*, *art*, *is*, *are*, &c. or, *am not*, *art not*, *is not*, *are not*, &c.

It is not a Thing of Importance enough to create a Dispute, whether the Words *no*, *none*, *not*, *never*, &c. which disjoin the Ideas or Terms in a negative Proposition, shall be call'd a Part of the *Subject*, of the *Copula*, or of the *Predicate*. Sometimes perhaps they may seem most naturally to be included in one, and sometimes in another of these, tho' a Proposition is usually denominated *affirmative* or *negative* by its *Copula*, as hereafter.

Note 1. Where each of these Parts of a Proposition is not expreſt distinctly in so many Words, yet they are all understood and implicitly contained therein; as, *Socrates disputed*, is a compleat Proposition, for it signifies, *Socrates was disputing*. So, *I dye*, signifies *I am dying*. *I can write*, i. e. *I am able to write*. In *Latin* and *Greek* one single Word is many Times a compleat Proposition.

Note 2. These Words, *am*, *art*, *is*, &c. when they are used alone without any other Predicate, signify both the *Act of the Mind judging*, which includes the *Copula*, and signify also *actual Existence*, which is the Predicate of that Proposition. So *Rome is*, signifies *Rome is existent: There are some strange Monsters*, that is, *some strange Monsters are existent. Carthage is no more*, i. e. *Carthage has no Being.*

Note 3. The Subject and Predicate of a Propoſition are not always to be known and diſtinguiſh'd by the placing of the Words in the Sentence, but by reflecting duly on the Senſe of the Words, and on the Mind and Deſign of the Speaker or Writer: As if I ſay, *in Africa there are many Lions*, I mean *many Lions are exiſtent in* Africa: *Many Lions* is the Subject, and *exiſtent in Africa* is the Predicate. *It is proper for a Philoſopher to underſtand Geometry*; here the Word *Proper* is the Predicate, and all the reſt is the Subject, except *Is* the Copula.

Note 4. The Subject and Predicate of a Propoſition ought always to be two different *Ideas*, or two different Terms; for where both the *Terms* and *Ideas* are the ſame, it is call'd an *identical Propoſition*, which is mere trifling, and cannot tend to promote Knowledge, ſuch as, *a Rule is a Rule*, or a *good Man is a good Man.*

But there are ſome Propoſitions, wherein the *Terms* of the Subject and Predicate ſeem to be the ſame, yet the *Ideas* are not the ſame; nor can theſe be call'd *purely identical* or trifling Propoſitions; ſuch as *Home is Home*; that is, *Home is a convenient* or *delightful Place: Socrates is Socrates ſtill*; that is, *the Man Socrates is ſtill a Philoſopher: The Hero was not a Hero*; that is, *the Hero did not ſhew his Courage: What I have written, I have written:* that is, *what I wrote I ſtill approve and will not alter it*: *What is done, is done*; that is, *it cannot be undone.* It may be eaſily obſerved in theſe Propoſitions the Term is *equivocal*, for in the *Predicate* it has a different Idea from what it has in the *Subject*.

There are alſo ſome Propoſitions wherein the *Terms* of the Subject and Predicate differ, but the *Ideas* are the ſame; and theſe are not *merely identical*

tical or trifling Propositions; as, *impudent is shameless*; a *Billow is a Wave*; or *Fluctus* (in Latin) *is a Wave*; a *Globe is a round Body*. In these Propositions either the Words are explain'd by a Definition of the Name, or the Ideas by a Definition of the Thing, and therefore they are by no Means useless, when formed for this Purpose.

CHAP. II.

Of the various Kinds of Propositions.

PRopositions may be distributed into various Kinds according to their *Subject*, their *Copula*, their *Predicate*, their *Nature* or *Composition*, their *Sense*, and their *Evidence*, which Distributions will be explain'd in the following Sections.

SECT. I.

Of universal, particular, indefinite, and singular Propositions.

PRopositions may be divided according to their *Subject* into *universal* and *particular*; this is usually call'd a Division arising from the *Quantity*.

An *universal Proposition* is when the Subject is taken according to the whole of its Extension; so if the Subject be a *Genus* or general Nature, it includes all its *Species* or Kinds: If the Subject be a *Species*, it includes all its Individuals. This Universality is usually signified by these Words, *all*, *every*, *no*, *none*, or the like; as, *all Men must dye*:

dye: No Man is Almighty: Every Creature had a beginning.

A *particular Propoſition* is when the Subject is not taken according to its whole Extenſion; that is, when the Term is limited and reſtrained to ſome one or more of thoſe *Species* or *Individuals*, whoſe general Nature it expreſſes, but reaches not to all; and this is uſually denoted by the Words, *ſome*, *many*, *a few*, *there are which*, &c. as, *ſome Birds can ſing well: Few Men are truly wiſe: There are Parrots which will talk a hundred Things.*

Under the general Name of *univerſal Propoſitions*, we may juſtly include thoſe that are *ſingular*, and for the moſt Part thoſe that are *indefinite* alſo.

A *ſingular Propoſition* is when the Subject is a ſingular or individual Term or Idea; as Deſcartes *was an ingenious Philoſopher: Sir* Iſaac Newton *has far exceeded all his Predeceſſors: The Palace at* Hampton-Court *is a pleaſant Dwelling: This Day is very cold.* The Subject here muſt be taken according to the whole of its Extenſion, becauſe being an *individual*, it can extend only to one, and it muſt therefore be regulated by the Laws of *univerſal Propoſitions.*

An *indefinite Propoſition*, is, when no Note, either of Univerſality or Particularity, is prefixed to a Subject, which is in its own Nature general; as, *a Planet is ever changing its Place: Angels are noble Creatures.* Now this ſort of Propoſition, eſpecially when it deſcribes the Nature of Things, is uſually counted *univerſal* alſo, and it ſuppoſes the Subject to be taken in its whole Extenſion; for if there were any *Planet* which did not *change its Place*, or any *Angel* that were not a *noble Creature*,

Creature, these Propositions would not be strictly true.

Yet in order to secure us against Mistakes in judging of *universal*, *particular* and *indefinite* Propositions, it is necessary to make these following Remarks.

I. *Concerning universal Propositions.*

Note 1. Universal Terms may either denote a *metaphysical*, a *physical*, or a *moral* Universality.

A *metaphysical*, or *mathematical Universality*, is when all the Particulars contain'd under any general Idea have the same Predicate belonging to them without any Exception whatsoever; or when the Predicate is so essential to the universal Subject, that it destroys the very Nature of the Subject to be without it; as, *all Circles have a Centre and Circumference: All Spirits in their own Nature are immortal.*

A *physical* or *natural Universality*, is, when according to the Order and common Course of Nature, a Predicate agrees to all the Subjects of that Kind, tho' there may be some accidental and preternatural Exceptions; as, *all Men use Words to express their Thoughts*, yet *dumb* Persons are excepted, for they cannot speak. *All Beasts have four Feet*, yet there may be some *Monsters* with five; or *maim'd*, who have but three.

A *moral Universality*, is when the Predicate agrees to the greatest part of the Particulars which are contain'd under the universal Subject; as, *all Negroes are stupid Creatures: All Men are govern'd by Affection rather than by Reason: All the old* Romans *loved their Country:* And the Scripture uses this Language, when St. *Paul* tells us, *The Cretes are always Liars.*

Now

Now it is evident, that a ſpecial or ſingular Concluſion cannot be infer'd from a *moral Univerſality*, nor always and infallibly from a *phyſical* one, tho' it may be always inferred from a Univerſality which is *metaphyſical*, without any Danger, or Poſſibility of Miſtake.

Let it be obſerved alſo, that uſually we make little or no Diſtinction in common Language, between a Subject that is *phyſically* or *metaphyſically* univerſal.

Note 2. An univerſal Term is ſometimes taken *collectively* for all its particular Ideas united together, and ſometimes *diſtributively*, meaning each of them ſingle and alone.

Inſtances of a *collective Univerſal* are ſuch as theſe: *All theſe Apples will fill a Buſhel: All the Hours of the Night are ſufficient for Sleep: All the Rules of Grammar overload the Memory.* In theſe Propoſitions it is evident, that the Predicate belongs not to the *Individuals ſeparately*, but to the *whole collective* Idea; for we cannot affirm the ſame Predicate, if we change the Word *all* into *one*, or into *every*, we cannot ſay *one Apple* or *every Apple will fill a Buſhel*, &c. Now ſuch a *collective Idea* when it becomes the Subject of a Propoſition, ought to be eſteem'd as one ſingle Thing, and this renders the Propoſition *ſingular* or *indefinite*, as we ſhall ſhew immediately.

A *diſtributive Univerſal* will allow the Word *all* to be chang'd into *every*, or into *one*, and by this Means is diſtinguiſh'd from a *collective*.

Inſtances of a *diſtributive Univerſal*, are the moſt common on every Occaſion; as, *all Men are mortal: Every Man is a Sinner*, &c. But in this ſort of *Univerſal* there is a Diſtinction to be made, which follows in the next *Remark*.

Note

Note 3. When an *universal Term* is taken *distributively*, sometimes it includes all the *Individuals* contain'd in its inferior Species: as when I say *every Sickness has a Tendency to Death*; I mean *every Individual* Sickness as well as *every Kind*. But sometimes it includes no more than merely *each Species* or *Kind*; as when the Evangelist says *Christ healed every Disease*, or *every Disease was healed by Christ*; that is, *every kind* of Disease. The *first* of these, Logicians call the Distribution of an Universal *in singula generum*; the *last* is a Distribution *in genera singulorum*. But either of them joined to the Subject render a Proposition *universal*.

Note 4. The Universality of a Subject is often restrained by a Part of the Predicate; as when we say *all Men learn Wisdom by Experience:* The universal Subject, *all Men*, is limited to signify only, *all those Men who learn Wisdom*. The Scripture also uses this sort of Language, when it speaks of *all Men being justified by the Righteousness of one*, Rom. v. 18. that is *all Men who are justified* obtain it this way.

Observe here, that not only a *metaphysical* or *natural*, but a *moral* Universality also is oftentimes to be restrained by a part of the Predicate; as when we say, *all the* Dutch *are good Seamen: All the* Italians *are subtle Politicians*; that is, those among the *Dutch*, who are *Seamen*, are good Seamen; and those among the *Italians*, who are *Politicians*, are subtle Politicians, *i.e.* they are generally so.

Note 5. The Universality of a Term is many times restrained by the particular *Time*, *Place*, *Circumstance*, &c. or the *Design* of the Speaker; as if we are in the City of *London*, and say, *all the Weavers went to present their Petition*; we mean only

only *all the Weavers who dwell in the City.* So when it is ſaid in the Goſpel, *all Men did marvel,* Mark v. 20. it reaches only to *all thoſe Men who heard of the Miracles of our Saviour.*

Here alſo it ſhould be obſerv'd, that a *moral Univerſality* is reſtrained by *Time*, *Place*, and other *Circumſtances* as well as a *natural*; ſo that by theſe Means the Word *all* ſometimes does not extend to a tenth Part of thoſe who at firſt might ſeem to be included in that Word.

One Occaſion of theſe Difficulties and Ambiguities, that belong to *univerſal Propoſitions*, is the common Humour and Temper of Mankind, who generally have an Inclination to magnify their Ideas, and to talk roundly and *univerſally* concerning any thing they ſpeak of; which has introduced univerſal Terms of Speech into Cuſtom and Habit, in all Nations and all Languages, more than Nature or Reaſon would dictate; yet when this Cuſtom is introduced, it is not at all improper to uſe this ſort of Language in ſolemn and ſacred Writings, as well as in familiar Diſcourſe.

II. *Remarks concerning indefinite Propoſitions.*

Note 1. Propoſitions carrying in them univerſal Forms of Expreſſion, may ſometimes drop the *Note of Univerſality*, and become *indefinite*, and yet retain the ſame univerſal Senſe, whether *metaphyſical*, *natural* or *moral*, whether *collective* or *diſtributive.*

We may give Inſtances of each of theſe.

Metaphyſical; as, *a Circle has a Center and Circumference.* Natural; as, *Beaſts have four Feet.* Moral; as, *Negroes are ſtupid Creatures.* Collective; as, *the Apples will fill a Buſhel.* Diſtributive; as, *Men are mortal.*

Note 2. There are many Cases wherein a *collective Idea* is expreſt in a Propoſition by an *indefinite Term*, and that where it deſcribes the *Nature* or *Quality* of the Subject, as well as when it declares ſome *paſt Matters of Fact*; as, *Fir-trees ſet in good Order will give a charming Proſpect*; this muſt ſignify a *Collection of Fir-Trees*, for one makes no Proſpect. In Matters of Fact this is more evident and frequent; as the Romans *overcame the* Gauls: *The Robbers ſurrounded the Coach: The wild Geeſe flew over the* Thames *in the Form of a Wedge.* All theſe are collective Subjects.

Note 3. In *indefinite Propoſitions* the Subject is often reſtrained by the Predicate, or by the ſpecial Time, Place, or Circumſtances, as well as in Propoſitions which are expreſly univerſal; as, the Chineſes *are ingenious Silk-Weavers*, i. e. thoſe *Chineſes*, which are *Silk-Weavers* are *ingenious* at their Work. *The Stars appear to us when the Twylight is gone.* This can ſignify no more than *the Stars* which are above our Horizon.

Note 4. All theſe Reſtrictions tend to reduce ſome *indefinite* Propoſitions almoſt into *particular*, as will appear under the next Remarks.

III. *Remarks concerning particular Propoſitions.*

Note 1. A *particular* Propoſition may ſometimes be expreſt *indefinitely*, without any Note of Particularity prefixt to the Subject; as, *in times of Confuſion Laws are not executed: Men of Virtue are diſgraced, and Murthers eſcape*, i. e. *ſome Laws, ſome Men of Virtue, ſome Murtherers:* Unleſs we ſhould call this Language a *moral Univerſality*, tho' I think it can hardly extend ſo far.

Note 2. The Words *ſome*, *a few*, &c. tho' they generally denote a proper *Particularity*, yet ſometimes they expreſs a *collective Idea*; as, *ſome of the Enemies*

mies beſet the General around. A few Greeks *would beat a thouſand* Indians.

I conclude this *Section* with a few *general Remarks* on this Subject (*viz.*)

Gen. Rem. I. Since *univerſal*, *indefinite* and *particular* Terms in the plural Number may either be taken in a *collective* or a *diſtributive* Senſe, there is one ſhort and eaſy Way to find when they are *collective* and when *diſtributive* (viz.) If the Plural Number may be chang'd into the ſingular, *i. e.* if the Predicate will agree to one ſingle Subject, it is a *diſtributive* Idea; if not, it is *collective*.

Gen. Rem. II. *Univerſal* and *particular* Terms in the plural Number, ſuch as, *all*, *ſome*, *few*, *many*, &c. when they are taken in their *diſtributive* Senſe, repreſent *ſeveral ſingle Ideas*; and when they are thus affixed to the Subject of a Propoſition, render that Propoſition *univerſal* or *particular*, according to the univerſality or particularity of the Terms affixt.

Gen. Rem. III. *Univerſal* and *particular* Terms in the plural Number, taken in their *collective* Senſe, repreſent generally one *collective Idea*.

If this one *collective Idea* be thus repreſented (whether by univerſal or particular Terms) as the Subject of a Propoſition which *deſcribes the Nature of a Thing*, it properly makes either a *ſingular* or an *indefinite Propoſition*; for the Words, *all*, *ſome*, *a few*, &c. do not then denote the *Quantity* of the Propoſition, but are eſteem'd merely as Terms which connect the Individuals together in order to compoſe *one collective Idea*. Obſerve theſe Inſtances, *all the Sycamores in the Garden would make a large Grove*; i. e. this one Collection of Sycamores, which is a *ſingular Idea*.

Some

Some of the Sycamores in the Garden would make a fine Grove. Sycamores would make a noble Grove: In these last the Subject is rather *indefinite* than *singular*. But it is very evident, that in each of these Propositions the Predicate can only belong to a *collective Idea*, and therefore the Subject must be esteem'd a *collective*.

If this *collective Idea* (whether represented by universal or particular Terms) be used in *describing past Matters of Fact*, then it is generally to be esteem'd a *singular* Idea, and renders the Proposition *singular*; as, *all the Soldiers of* Alexander *made but a little Army*; *A few* Macedonians *vanquished the large Army of* Darius: *Some Grenadiers in the Camp plunder'd all the neighbouring Towns.*

Now we have shewn before, that if a Proposition *describing the Nature of Things* has an *indefinite* Subject, it is *generally* to be esteem'd *universal* in its propositional Sense: And it has a *singular Subject*, in its propositional Sense it is *always* rankt with *Universals*.

After all we must be forced to confess, that the Language of Mankind, and the Idioms of Speech are so exceeding various, that it is hard to reduce them to a few Rules; and if we would gain a just and precise Idea of every *universal*, *particular* and *indefinite* Expression, we must not only consider the peculiar Idiom of the Language, but the Time, the Place, the Occasion, the Circumstances of the Matter spoken of, and thus penetrate as far as possible into the Design of the Speaker or Writer.

SECT.

Sect. II.

Of affirmative and negative Propositions.

WHEN a Proposition is consider'd with Regard to its *Copula*, it may be divided into *affirmative* and *negative*; for it is *the Copula* joins or disjoins the two Ideas. Others call this a Division of Propositions according to their *Quality*.

An *affirmative Proposition* is when the Idea of the Predicate is suppos'd to agree to the Idea of the Subject, and is joined to it by the Word *is*, or *are*, which is the *Copula*; as, *all Men are Sinners*. But when the Predicate is not suppos'd to agree with the Subject, and is disjoined from it by the Particles *is not*, *are not*, &c. the Proposition is *negative*; as, *Man is not innocent*; or, *no Man is innocent*. In an *affirmative Proposition* we assert one Thing to belong to another, and, as it were, unite them in Thought and Word: In *negative Propositions* we separate one Thing from another, and deny their Agreement.

It may seem something odd, that two Ideas or Terms are said to be *disjoined* as well as *joined* by a *Copula:* But if we can but suppose the negative Particles do really belong to the *Copula* of negative Propositions, it takes away the Harshness of the Expression: and to make it yet softer, we may consider that the Predicate and Subject may be properly said to be joined *in a Form of Words as a Proposition*, by connexive Particles in *Grammar* or *Logick*, tho' they are disjoined in their Sense and Signification. Every Youth, who has learnt his Grammar, knows there are such Words as *disjunctive Conjunctions*.

Several

Several Things are worthy our Notice on this Subject.

1st *Note.* As there are some *Terms*, or *Words*, and *Ideas* (as I have shewn before) concerning which it is hard to determine whether they are *negative* or *positive*, so there are some *Propositions* concerning which it may be difficult to say, whether they *affirm* or *deny*; as, when we say, *Plato was no Fool:* Cicero *was no unskilful Orator:* Cæsar *made no Expedition to* Muscovy: *An Oyster has no part like an Eel: It is not necessary for a Physician to speak* French, *and for a Physician to speak* French *is needless.* The Sense of these Propositions is very plain and easy, tho' Logicians might squabble perhaps a whole Day, whether they should rank them under the Names of *negative* or *affirmative.*

2d *Note.* In *Latin* and *English* two Negatives joined in one Sentence make an Affirmative; as when we declare *no Man is not mortal*, it is the same as tho' we said, *Man is mortal.* But in *Greek* and oftentimes in *French* two Negatives make but a stronger Denial.

3d *Note.* If the mere negative *Term*, *Not*, be added to the Copula of an *universal affirmative* Proposition, it reduces it to *a particular Negative*; as, *all Men are not wise*, signifies the same as, *some Men are not wise.*

4th *Note.* In all *affirmative* Propositions, the Predicate is taken in its whole Comprehension; that is, every essential Part and Attribute of it is affirmed concerning the Subject; as when I say, *a true Christian is an honest Man*, every Thing that belongs to *Honesty* is affirmed concerning a *true Christian.*

5th *Note.* In all *negative* Propoſitions the Predicate is taken in its whole Extenſion; that is, every Species and Individual that is contained in the general Idea of the Predicate, is utterly denied concerning the Subject: So in this Propoſition, *a Spirit is not an Animal*, we exclude all ſorts and kinds, and particular *Animals* whatſoever from the Idea of a *Spirit.*

From theſe two laſt Remarks we may derive this Inference, that we ought to attend to the *entire Comprehenſion* of our Ideas, and to the *univerſal Extenſion* of them, as far as we have proper Capacity for it, before we grow too confident in our affirming or denying any Thing, which may have the leaſt Darkneſs, Doubt or Difficulty attending it: It is the want of this Attention that betrays us into many Miſtakes.

Sect. III.

Of the Oppoſition and Converſion of Propoſitions.

ANY two Ideas being joined or disjoined in various Forms will afford us ſeveral Propoſitions: All theſe may be diſtinguiſhed according to their *Quantity* and their *Quality* * into four, which are markt or denoted by the Letters, A, E, I, O, thus:

A, E, I, O denotes a { Univerſal Affirmative. / Univerſal Negative. / Particular Affirmative. / Particular Negative.

according to theſe old Latin Rhymes——

* The Reader ſhould remember here, that a Propoſition according to its *Quantity* is called *univerſal* or *particular*, and according to its *Quality*, it is either *affirmative* or *negative.*

Asserit A, *Negat* E, *verum generaliter Ambæ.*
Asserit I, *Negat* O, *sed particulariter Ambo.*

This may be exemplified by these two Ideas, a *Vine* and a *Tree.*

A *Every Vine is a Tree.*
E *No Vine is a Tree.*
I *Some Vine is a Tree.*
O *Some Vine is not a Tree.*

The Logicians of the Schools have written many large Trifles concerning the *Opposition* and *Conversion* of Propositions. It will be sufficient here to give a few brief Hints of these Things, that the Learner may not be utterly ignorant of them.

Propositions which are made of the same Subject and Predicate are said to be *opposite*, when that which is denied in one is affirmed in the other, either in whole or in part, without any Consideration whether the Propositions be true or no.

If they differ both in Quantity and Quality they are call'd *Contradictory*, as,

A *Every Vine is a Tree.*
O *Some Vine is not a Tree.*
} These can never be both true, or both false at the same Time.

If two Universals differ in Quality they are *Contraries*, as,

A *Every Vine is a Tree.*
E *No Vine is a Tree.*
} These can never be both true together, but they may be both false.

If two particular Propositions differ in Quality they are *Subcontraries*, as,

I *Some Vine is a Tree.*
O *Some Vine is not a Tree.*
} These may be both true together, but they can never be both false.

Both particular and universal Propositions which agree in Quality but not in Quantity are call'd *Subaltern*, tho these are not properly *opposite*, as,

A *Every Vine is a Tree.*
I *Some Vine is a Tree.*

Or thus,

E *No Vine is a Tree,*
O *Some Vine is not a Tree.*

The Canons of *subalternate Propositions* are usually reckoned these three (*viz.*) (1.) If an universal Proposition be true, the particular will be true also, but not on the contrary. And (2.) If a particular Proposition be false, the universal must be false too, but not on the contrary. (3.) *Subaltern Propositions*, whether universal or particular, may sometimes be both true, and sometimes both false.

The *Conversion of Propositions* is when the Subject and Predicate change their Places with Preservation of the Truth. This may be done with constant Certainty in all *universal Negatives* and *particular Affirmatives*; as *no Spirit is an Animal*, may be converted, *no Animal is a Spirit*; and *some Tree is a Vine*, may be converted, *some Vine is a Tree*. But there is more formal Trifling in this sort of Discourse than there is of solid Improvement, because this sort of *Conversion* arises merely from the *Form of Words*, as connected in a Proposition, rather than from the Matter.

Yet it may be useful to observe, that there are some Propositions, which by Reason of the *Ideas* or *Matter* of which they are compos'd may be converted with constant Truth: Such are those Propositions

Propositions whose Predicate is a nominal or real Definition of the Subject, or the Difference of it, or a Property of the fourth Kind, or a superlative Degree of any Property or Quality whatsoever, or in short, wheresoever the Predicate and the Subject have exactly the same Extension or the same Comprehension; as, *every Vine is a Tree bearing Grapes*; and *every Tree bearing Grapes is a Vine: Religion is the truest Wisdom*; and *the truest Wisdom is Religion:* Julius Cæsar *was the first Emperor of* Rome; *and the first Emperor of* Rome *was* Julius Cæsar. These are the Propositions which are properly convertible, and they are call'd *reciprocal Propositions.*

Sect. IV.

Of pure and modal Propositions.

ANother Division of Propositions among the scholastick Writers is into *pure* and *modal.* This may be call'd (for Distinction sake) a Division according to the *Predicate.*

When a Proposition merely expresses that the Predicate is connected with the Subject, it is call'd a *pure Proposition*; as, *every true Christian is an honest Man.* But when it includes also the *Way* and *Manner* wherein the Predicate is connected with the Subject, it is call'd a *modal Proposition*, as, when I say, *it is necessary that a true Christian should be an honest Man.*

Logical Writers generally make the *Modality* of this Proposition to belong to the *Copula*, because it shews the *Manner* of the Connection between Subject and Predicate. But if the Form of the Sentence as a *logical* Proposition be duly consider'd, the *Mode* itself is the very *Predicate*

of the Propoſition, and it muſt run thus: *That a true Chriſtian ſhould be an honeſt Man is a neceſſary Thing*, and then the whole *primary* Propoſition is included in the Subject of the *modal* Propoſition.

There are *four Modes* of connecting the Predicate with the Subject, which are uſually reckoned up on this Occaſion (*viz.*) *Neceſſity* and *Contingency* which are two Oppoſites, *Poſſibility* and *Impoſſibility* which are alſo Oppoſites; as, *it is neceſſary that a Globe ſhould be round: That a Globe be made of Wood or Glaſs is an unneceſſary* or *contingent Thing: It is impoſſible that a Globe ſhould be ſquare: It is poſſible that a Globe may be made of Water.*

With Regard to theſe *modal Propoſitions* which the Schools have introduced, I would make theſe two Remarks.

Remark 1. Theſe Propoſitions in *Engliſh* are form'd by the Reſolution of the Words, *muſt be*, *might not be*, *can be*, and *cannot be*, into thoſe more explicate Forms of a logical Copula and Predicate, *is neceſſary*, *is contingent*, *is poſſible*, *is impoſſible:* For *it is neceſſary that a Globe ſhould be round*, ſignifies no more than that a *Globe muſt be round.*

Remark 2. Let it be noted that this quadruple Modality is only an Enumeration of the *natural Modes* or Manners wherein the Predicate is connected with the Subject: We might alſo deſcribe ſeveral *moral* and *civil Modes* of connecting two Ideas together (*viz.*) *Lawfulneſs* and *Unlawfulneſs*, *Conveniency* and *Inconveniency*, &c. whence we may form ſuch *modal Propoſitions* as theſe. *It is unlawful for any Perſon to kill an innocent Man; It is lawful for Chriſtians to eat Fleſh in* Lent: *To tell*

tell all that we think is inexpedient: For a Man to be affable to his Neighbour is very convenient, &c.

There are several other *Modes* of speaking whereby a Predicate is connected with a Subject: such as, *it is certain, it is doubtful, it is probable, it is improbable, it is agreed, it is granted, it is said by the Ancients, it is written*, &c. all which will form other kinds of *modal Propositions*.

But whether the *Modality* be *natural*, *moral*, &c. yet in all these Propositions it is the *Mode* is the *proper Predicate*, and all the rest of the Proposition, except the *Copula* (or Word *is*) belongs to the *Subject*; and thus they become *pure Propositions* of a complex Nature, of which we shall treat in the next *Section*, so that there is no great Need of making *Modals* a distinct Sort.

There are many little Subtilties which the Schools acquaint us with concerning the *Conversion* and *Opposition*, and *Equipollence* of these modal Propositions, suited to the *Latin* or *Greek* Tongues, rather than the *English*, and fit to pass away the idle Time of a Student, rather than to enrich his Understanding.

Sect. V.

Of single Propositions, whether simple or complex.

WHEN we consider the *Nature of Propositions*, together with the *Formation* of them, and the *Materials* whereof they are made, we divide them into *single* and *compound*.

A *single Proposition* is that which has but one Subject and one Predicate; but if it has more Subjects or more Predicates, it is call'd a *compound Proposition*, and indeed it contains two or more Propositions in it.

A *single*

A *ſingle* Propoſition (which is alſo call'd *categorical*) may be divided again into *ſimple* and *complex* *.

A *purely ſimple Propoſition* is that whoſe Subject and Predicate are made up of ſingle Terms; as, *Virtue is deſirable: Every Penitent is pardon'd: No Man is innocent.*

When the Subject, or Predicate, or both, are made up of complex Terms, it is called a *complex Propoſition*; as *every ſincere Penitent is pardon'd*; *Virtue is deſirable for its own Sake: No Man alive is perfectly innocent.*

If the Term which is added to the Subject of a complex Propoſition be either eſſential or any Way neceſſary to it, then it is call'd *explicative*, for it only explains the Subject; as *every mortal Man is a Son of* Adam. But if the Term added to make up the complex Subject does not neceſſarily or conſtantly belong to it, then it is *determinative*, and limits the Subject to a particular part of its Extenſion; as, *every pious Man ſhall be happy.* In the firſt Propoſition the Word *mortal* is merely *explicative:* in the ſecond Propoſition the Word *pious* is *determinative.*

Here note, that whatſoever may be affirm'd or denied concerning any Subject with an *explicative* Addition, may be alſo affirm'd or denied of that Subject without it; as we may boldly ſay, *every Man is a Son of* Adam, as well as, *every mortal Man:* But it is not ſo, where the Addition is *determinative*, for we cannot ſay, *every Man ſhall be happy*, tho' every *pious Man* ſhall be ſo.

* As *ſimple* Ideas are oppoſed to *complex*, and *ſingle* Ideas to *compound*, ſo Propoſitions are diſtinguiſh'd in the ſame manner: The *Engliſh* Tongue in this Reſpect having ſome Advantage above the *learned* Languages, which have no uſual Word to diſtinguiſh *ſingle* from *ſimple*.

In

In a complex Proposition the Predicate or Subject is sometimes made complex by the Pronouns, *who*, *which*, *whose*, *to whom*, &c. which make another Proposition; as *every Man*, who is pious, *shall be saved: Julius*, whose Sirname was *Cæsar*, *overcame* Pompey: *Bodies*, which are transparent, *have many Pores*. Here the whole Proposition is call'd the *primary* or *chief*, and the additional Proposition is call'd an *incident Proposition*. But it is still to be esteem'd in this Case merely as a part of the complex Term; and the Truth or Falshood of the *whole complex Proposition* is not to be judg'd by the Truth or Falshood of the *incident Proposition*, but by the Connection of the whole Subject with the Predicate. For the incident Proposition may be false, and absurd, or impossible, and yet the whole complex Proposition may be true, as, *a Horse*, which has Wings, *might fly over the* Thames.

Beside this *Complexion* which belongs to the *Subject* or *Predicate*, logical Writers use to say, there is a *Complexion* which may fall upon the *Copula* also: But this I have accounted for in the *Section* concerning *modal Propositions*; and indeed it is not of much Importance whether it were placed there or here.

Sect. VI.

Of compound Propositions.

A *Compound Proposition* is made up of two or more Subjects or Predicates, or both; and it contains in it two or more Propositions, which are either *plainly expreſt*, or *conceal'd* and *imply'd*.

The

The *first* sort of *compound Propositions* are those wherein the Composition is *expreſt* and *evident*, and they are diſtinguiſh'd into theſe ſix Kinds, (*viz.*) *Copulative*, *Disjunctive*, *Conditional*, *Cauſal*, *Relative* and *Diſcretive*.

I. *Copulative Propoſitions* are thoſe which have more Subjects or Predicates connected by affirmative or negative Conjunctions; as, *Riches* and *Honours are Temptations to Pride:* Cæſar *conquer'd the* Gauls *and the* Britons: Neither *Gold* nor *Jewels will purchaſe Immortality.* Theſe Propoſitions are evidently *compounded*, for each of them may be reſolv'd into two Propoſitions, (*viz.*) *Riches are Temptations to Pride*; and *Honour is a Temptation to Pride*; and ſo the reſt.

The Truth of *copulative* Propoſitions depends upon the Truth of all the Parts of them; for if *Cæſar* had conquer'd the *Gauls*, and not the *Britons*, or the *Britons* and not the *Gauls*, the ſecond copulative Propoſition had not been true.

Here note, thoſe Propoſitions, which cannot be reſolved into two or more ſimple Propoſitions, are not properly *copulative*, tho' two or more Ideas be connected and coupled by ſuch Conjunctions, either in the Subject or Predicate; as, *two and three make five: Majeſty and Meekneſs don't often meet: The Sun, Moon, and Stars are not all to be ſeen at once.* Such Propoſitions are to be eſteem'd merely *complex*, becauſe the Predicate cannot be affirm'd of each *ſingle* Subject, but only of all of them together as a *collective* Subject.

II. *Disjunctive Propoſitions* are when the Parts are disjoined or oppoſed to one another by diſjunctive Particles; as, *it is* either *Day* or *Night: The*

The Weather is either *shining* or *rainy: Quantity is* either *Length*, *Breadth*, or *Depth*.

The Truth of *Disjunctives* depends on the necessary and immediate Opposition of the Parts; therefore only the last of these Examples is true; but the two first are not strictly true, because *Twilight* is a Medium between *Day* and *Night*; and *dry*, *cloudy Weather* is a Medium between *shining* and *raining*.

III. *Conditional* or *hypothetical Propositions* are those whose Parts are united by the conditional Particle *if*; as, If *the Sun be fixt*, *the Earth must move:* If *there be no Fire*, *there will be no Smoke*.

Note, The first Part of these Propositions, or that wherein the Condition is contain'd, is call'd the *antecedent*, the other is call'd the *consequent*.

The Truth of these Propositions depends not at all on the Truth and Falshood of their two Parts, but on the Truth of the *Connection* of them; for each part of them may be false, and yet the whole Proposition true; as, *if there be no Providence*, *there will be no future Punishment*.

IV. *Causal Propositions* are where two Propositions are joined by causal Particles; as, *Houses were not built* that *they might be destroyed:* Rehoboam *was unhappy* because *he followed evil Counsel*.

The Truth of a *causal Proposition* arises not from the Truth of the Parts, but from the *causal Influence* that the one Part of it has upon the other; for both Parts may be true, yet the Proposition false, if one Part be not the Cause of the other.

Some Logicians refer *reduplicative Propositions* to this Place, as, *Men*, *considered as Men*, *are rational Creatures*, i. e. *because they are Men*.

V. *Re-*

V. *Relative Propositions* have their Parts joined by such Particles, as express a Relation or Comparison of one Thing to another; as, *when you are silent I will speak: As much as you are worth, so much you shall be esteemed: As is the Father, so is the Son: Where there is no Tale-Bearer, Contention will cease.*

These are very much akin to *conditional* Propositions, and the Truth of them depends upon the Justness of their *Connection.*

VI. *Discretive Propositions* are such wherein various and seemingly opposite Judgments are made whose Variety or Distinction is noted by the Particles, *but*, *tho'*, *yet*, &c. as, *Travellers may change their Climate but not their Temper:* Job *was Patient*, *tho' his Grief was great.*

The Truth and Goodness of a *discretive Proposition* depends on the Truth of both Parts, and their Contradistinction to one another; for tho' both Parts should be true, yet if there be no seeming Opposition between them, it is an useless Assertion, tho' we cannot call it a false one; as, Descartes *was a Philosopher*, *yet he was a* Frenchman: *The* Romans *were valiant*, *but they spoke* Latin; both which Propositions are ridiculous, for want of a seeming Opposition between the Parts.

Since we have declared wherein the *Truth* and *Falshood* of these *compound Propositions* consist, it is proper also to give some intimations how any of these Propositions when they are false may be *opposed* or *contradicted.*

All compound Propositions, except *Copulatives* and *Discretives*, are properly denied or contradicted when the Negation affects their conjunctive Particles; as, if the disjunctive Proposition af-

serts, *it is either Day or Night:* The Opponent says, *It is not either Day or Night*, or *it is not necessary that it should be either Day or Night*, so the *hypothetical* Proposition is denied by saying, *it does not follow that the Earth must move if the Sun be fix'd.*

A *disjunctive Proposition* may be contradicted also by denying all the Parts, as, *it is neither Day nor Night.*

And a *causal Proposition* may be denied or opposed *indirectly* and *improperly*, when either part of the Proposition is denied; and it must be false if either Part be false: But the Design of the Proposition being to shew the *causal Connection* of the two Parts, each Part is suppos'd to be true, and it is not properly contradicted as a *causal Proposition*, unless one Part of it be denied to be the Cause of the other.

As for *Copulatives* and *Discretives*, because their Truth depends more on the Truth of their Parts, therefore these may be oppos'd or denied as many Ways, as the Parts of which they are compos'd may be denied; so this copulative Proposition, *Riches and Honour are Temptations to Pride*, may be denied by saying, *Riches are not Temptations, tho' Honour may be:* or, *Honour is not a Temptation, tho' Riches may be:* or *neither Riches nor Honour are Temptations*, &c.

So this *discretive* Proposition, *Job was patient, tho' his Grief was great*, is denied by saying, *Job was not patient, tho' his Grief was great:* or, *Job was patient, but his Grief was not great:* or *Job was not patient, nor was his Grief great.*

We proceed now to the *second sort* of compound Propositions, (*viz.*) such *whose Composition is not expressed, but latent or conceal'd*, yet a small Attention will find two Propositions included in them. Such are these that follow;

1 Exclusives;

1. Excluſives; as, *The pious Man alone is happy. It is only Sir* Iſaac Newton *could find out true Philoſophy.*

2. Exceptives; as, *None of the Ancients but* Plato *well defended the Soul's Immortality. The Proteſtants worſhip none but God.*

3. Comparatives; as, *Pain is the greateſt Affliction. No* Turk *was fiercer than the* Spaniards *at* Mexico.

Here note, that the *comparative* Degree does not always imply the Poſitive; as if I ſay, *A Fool is better than a Knave*; this does not affirm that *Folly is good*, but that it is a *leſs Evil than Knavery.*

4. Inceptives and Deſitives, which relate to the beginning or ending of any thing; as, *the* Latin *Tongue is not yet forgotten. No Man before* Orpheus *wrote* Greek *Verſe*; Peter *Czar of* Muſcovy *begun to civilize his Nation.*

To theſe may be added *Continuatives*; as, *Rome remains to this Day*, which includes at leaſt two Propoſitions, (*viz.*) *Rome was*, and *Rome is.*

Here let other Authors ſpend Time and Pains in giving the preciſe Definitions of all theſe ſorts of Propoſitions, which may be as well underſtood by their Names and Examples: Here let them tell what their Truth depends upon, and how they are to be oppoſed or contradicted; but a moderate Share of common Senſe, with a Review of what is ſaid on the former *Compounds*, will ſuffice for all theſe Purpoſes without the Formality of Rules.

SECT.

Sect. VII.

Of true and false Propositions.

PRopositions are next to be consider'd according to their *Sense* or *Signification*, and thus they are distributed into *true* and *false*. A *true Proposition* represents Things as they are in themselves; but if Things are represented otherwise than they are in themselves, the Proposition is *false*.

Or we may describe them more particularly thus; a *true Proposition* joins those Ideas and Terms together whose Objects are join'd and agree, or it disjoins those Ideas and Terms, whose Objects disagree or are disjoin'd; as, *every Bird has Wings*, *a Brute is not immortal.*

A *false Proposition* joins those Ideas or Terms whose Objects disagree, or it disjoins those whose Objects agree; as *Birds have no Wings*, *Brutes are immortal.*

Note, It is impossible that the same Proposition should be both true and false at the same Time, in the same Sense, and in the same Respect; because a Proposition is but the Representation of the Agreement or Disagreement of Things: Now *it is impossible that the same Thing should be and not be*, or *that the same Things should agree and not agree at the same Time and in the same Respect.* This is a first Principle of human Knowledge.

Yet some Propositions may seem to contradict one another, tho' they may be both true, but in different Senses or Respects or Times: as, *Man was immortal in Paradise*, and *Man was mortal in Paradise.* But these two Propositions must be refer'd to different Times; as, Man *before his Fall*

was immortal, but *at the Fall* he became mortal. So we may ſay now, *Man is mortal*, or *Man is immortal*, if we take theſe Propoſitions in different Reſpects; as, Man is an immortal Creature *as to his Soul*, but mortal *as to his Body*. A great Variety of Difficulties and ſeeming Contradictions, both in holy Scripture and other Writings, may be ſolved and explain'd in this manner.

The moſt important Queſtion on this Subject is this, *What is the* Criterion *or diſtinguiſhing Mark of Truth?* How ſhall we know when a Propoſition is really true or falſe? There are ſo many Diſguiſes of Truth in the World, ſo many falſe Appearances of Truth, that ſome Sects have declared there is no Poſſibility of diſtinguiſhing *Truth* from *Falſhood*; and therefore they have abandon'd all Pretences to Knowledge, and maintain'd ſtrenuouſly that *nothing is to be known.*

The firſt Men of this Humour made themſelves famous in *Greece*, by the Name of *Scepticks*; that is, *Seekers:* They were alſo call'd *Academicks*, borrowing their Name from *Academia*, their School or Place of Study. They taught that all *Things are uncertain*, tho' they allow'd that ſome are more probable than others. After theſe aroſe the Sect of *Pyrrhonicks*, named from *Pyrrho* their Maſter, who would not allow one Propoſition to be more probable than another; but profeſs'd that *all Things were equally uncertain.* Now all theſe Men (as an ingenious Author expreſſes it) were rather to be call'd a *Sect of Liars than Philoſophers*, and that Cenſure is juſt for two Reaſons; (1.) Becauſe they determined concerning every Propoſition that *it was uncertain*, and believed that as a certain Truth, while they profeſſed *there was nothing certain*, and that nothing could be determined concerning Truth or Falſhood; and thus

thus their very Doctrine gave itself the Lie. (2.) Because they judged and acted as other Men did in the common Affairs of Life; they would neither run into Fire nor Water, tho' they profess'd Ignorance and Uncertainty, whether the one would burn, or the other drown them.

There have been some in all Ages who have too much affected this Humour, who dispute against every thing, under Pretence that *Truth has no certain Mark to distinguish it.* Let us therefore enquire, *what is the general* Criterion *of Truth?* And in order to this, it is proper to consider what is the Reason why we assent to those Propositions, which contain the most certain and indubitable Truths, such as these, *the Whole is greater than a Part*; *two and three make five.*

The only Reason why we believe these Propositions to be true, is because the Ideas of the Subjects and Predicates appear with so much Clearness and Strength of Evidence to agree to each other, that the Mind cannot help discerning the Agreement, and cannot really doubt of the Truth of them, but is constrain'd to judge them true. So when we compare the Ideas of a *Circle* and a *Triangle*, or the Ideas of an *Oyster* and a *Butterfly*, we see such an evident Disagreement between them, that we are sure that *a Butterfly is not an Oyster*; nor is a *Triangle a Circle.* There is nothing but the Evidence of the Agreement or Disagreement between two Ideas, that makes us affirm or deny the one or the other.

Now it will follow from hence that a *clear and distinct Perception or full Evidence of the Agreement and Disagreement of our Ideas to one another, or to things*, is a certain *Criterion* of Truth: For since our Minds are of such a Make, that where the Evidence is exceeding plain and strong, we cannot

withhold our Aſſent; we ſhould then be neceſſarily expos'd to believe Falſhood, if compleat Evidence ſhould be found in any Propoſitions that are not true. But ſurely the God of perfect Wiſdom, Truth and Goodneſs would never oblige his Creatures to be thus deceiv'd; and therefore he would never have conſtituted us of ſuch a Frame, as would render it naturally impoſſible to guard againſt Error.

Another Conſequence is naturally deriv'd from the former; and that is, that the only Reaſon why we fall into a Miſtake is becauſe we are impatient to form a Judgment of Things before we have a clear and evident Perception of their Agreement or Diſagreement; and if we will make Haſte to judge while our Ideas are obſcure and confus'd, or before we ſee whether they agree or diſagree, we ſhall plunge our ſelves into perpetual Errors.

Note, What is here aſſerted concerning the Neceſſity of clear and diſtinct Ideas refers chiefly to Propoſitions, which we form *our ſelves* by our own Powers: As for Propoſitions which we derive from the *Teſtimony of others*, they will be accounted for in *Chap.* IV.

Sect. VIII.

Of certain and dubious Propoſitions, of Knowledge and Opinion.

SInce we have found that *Evidence* is the great *Criterion* and the ſure Mark of Truth; this leads us directly to conſider Propoſitions according to their *Evidence*; and here we muſt take Notice both of the *different Degrees* of Evidence, and the *different Kinds* of it.

Pro-

Propositions according to their *different Degrees of Evidence* are distinguish'd into *certain* and *dubious* †.

Where the Evidence of the Agreement or Disagreement of the Ideas is so strong and plain, that we cannot forbid nor delay our Assent; the Proposition is call'd *certain*, as, *every Circle hath a Centre*; *the World did not create it self*. *An Assent to such* Propositions is honour'd with the Name of *Knowledge*.

But when there is any Obscurity upon the Agreement or Disagreement of the Ideas, so that the Mind does not clearly perceive it, and is not compell'd to assent or dissent, then the Proposition, in a proper and philosophical Sense, is call'd *doubtful* or *uncertain*; as, *the Planets are inhabited*; *the Souls of Brutes are mere Matter*; *the World will not stand a thousand Years longer*; Dido *built the City of* Carthage, *&c.* Such *uncertain* Propositions are call'd *Opinions*.

When we consider our selves as *Philosophers* or *Searchers of Truth*, it would be well if we always suspended a full Judgment or Determination about any thing, and made farther Inquiries, where this plain and perfect Evidence is wanting; but we are so prone of our selves to judge without full Evidence, and in some Cases the Necessity of Action in the Affairs of Life constrains us to judge and determine upon a tolerable Degree of Evidence, that we vulgarly call those Propositions

† It may be objected, that this *Certainty* and *Uncertainty* being only in the Mind, the Division belongs to Propositions rather according to the Degrees of our *Assent*, than the Degrees of *Evidence*. But it may well be answered, that the *evidence* here intended is that which appears so *to the Mind*, and not the mere *Evidence in the Nature of Things*: Besides (as we shall shew immediately) *the Degree of Assent* ought to be exactly proportionable to the *Degree of Evidence*: and therefore the Difference is not great, whether Propositions be call'd *certain* or *uncertain*, according to the Measure of *Evidence*, or of *Assent*.

certain, where we have but very little Room or Reaſon to doubt of them, tho' the Evidence be not compleat and reſiſtleſs.

Certainty, according to the Schools, is diſtinguiſhed into *Objective* and *Subjective*. *Objective Certainty* is when the Propoſition is certainly true in it ſelf; and *Subjective*, when we are certain of the Truth of it. The one is in *Things*, the other is in our *Minds*.

But let it be obſerved here, that every Propoſition in it ſelf is *certainly true* or *certainly falſe*. For tho' *Doubtfulneſs* or *Uncertainty* ſeems to be a Medium between certain Truth and certain Falſhood in our Minds, yet there is no ſuch Medium in Things themſelves; no, not even in future Events: for now at this time it is certain in it ſelf, that *Midſummer-Day ſeven Years hence will be ſerene*, or it is certain it *will be cloudy*, tho' we are uncertain and utterly ignorant what ſort of Day it will be: This Certainty of diſtant Futurities is known to God only.

Uncertain or *dubious Propoſitions*, i. e. *Opinions*, are diſtinguiſh'd into *probable* or *improbable*.

When the Evidence of any Propoſition is greater than the Evidence of the contrary, then it is a *probable Opinion:* Where the Evidence and Arguments are ſtronger on the contrary Side, we call it *improbable*. But while the Arguments on either Side ſeem to be equally ſtrong, and the Evidence *for* and *againſt* any Propoſition appears equal to the Mind, then in *common Language* we call it a *doubtful Matter*. We alſo call it a *dubious* or *doubtful Propoſition* when there are no Arguments on either Side, as *next Chriſtmas-Day will be a very ſharp Froſt*. And in general all theſe Propoſitions are *doubtful*, wherein we can perceive no ſufficient Marks or Evidences of *Truth* or

or *Falshood*. In such a Case the Mind which is searching for Truth ought to remain in a State of *Doubt* and *Suspence*, until superior Evidence on one Side or the other incline the Balance of the Judgment, and determine the *Probability* or *Certainty* to one Side.

A great many Propositions which we generally believe or disbelieve in human Affairs, or in the Sciences, have very various Degrees of Evidence, which yet arise not to complete *Certainty* either of Truth or Falshood. Thus it comes to pass that there are such various and almost infinite Degrees of *Probability* and *Improbability*. To a weak *Probability* we should give a *weak Assent*; and a *stronger Assent* is due where the *Evidence is greater*, and the Matter more *probable*. If we *proportion our Assent in all Things to the Degree of Evidence*, we do the utmost that human Nature is capable of in a rational Way to secure it self from Error.

Sect. IX.

Of Sense, Consciousness, Intelligence, Reason, Faith and Inspiration.

After we have consider'd the *Evidence* of Propositions in the *various Degrees* of it, we come to survey the *several Kinds of Evidence*, or the different Ways whereby Truth is let into the Mind, and which produce accordingly several kinds of Knowledge. We shall distribute them into these six, *(viz.) Sense*, *Consciousness*, *Intelligence*, *Reason*, *Faith* and *Inspiration*, and then distinguish the Propositions which are derived from them.

I. The *Evidence of Senſe* is when we frame a Propoſition according to the Dictate of any of our Senſes; ſo we judge that *Graſs is green*; that a *Trumpet gives a pleaſant Sound*; the *Fire burns Wood*; *Water is ſoft*, and *Iron is hard*; for we have ſeen, heard or felt all theſe. It is upon this *Evidence of Senſe* that we know and believe the daily Occurrences in human Life; and almoſt all the Hiſtories of Mankind that are written by Eye or Ear-Witneſſes are built upon this Principle.

Under the Evidence of Senſe we don't only include that Knowledge which is derived to us by our outward Senſes of *Hearing*, *Seeing*, *Feeling*, *Taſting* and *Smelling*, but that alſo which is deriv'd from the inward Senſations and Appetites of *Hunger*, *Thirſt*, *Eaſe*, *Pleaſure*, *Pain*, *Wearineſs*, *Reſt*, &c. and all thoſe Things which belong to the Body; as *Hunger is a painful Appetite*, *Light is pleaſant: Reſt is ſweet to the weary Limbs.*

Propoſitions which are built on this Evidence may be named *ſenſible Propoſitions*, or the *Dictates of Senſe.*

II. As we learn what belongs to the Body by the *Evidence of Senſe*, ſo we learn what belongs to the Soul by an *inward Conſciouſneſs*, which may be call'd a ſort of internal Feeling, or ſpiritual Senſation of what paſſes in the Mind; as, *I think before I ſpeak*; *I deſire large Knowledge*; *I ſuſpect my own Practice*; *I ſtudied hard to Day*; *my Conſcience bears Witneſs of my Sincerity*; *my Soul hates vain Thoughts*; *Fear is an uneaſy Paſſion*; *long Meditation on one thing is tireſome.*

Thus

Thus it appears that we obtain the Knowledge of a Multitude of *Propositions*, as well as of *single Ideas* by those two Principles which Mr. *Locke* calls *Sensation* and *Reflection:* One of them is a sort of *Consciousness* of what affects the Body, and the other is a *Consciousness* of what passes in the Mind.

Propositions which are built on this *internal Consciousness*, have yet no particular or distinguishing Name assign'd to them.

III. *Intelligence* relates chiefly to those abstracted Propositions which carry their own Evidence with them, and admit no Doubt about them. Our Perception of this *Self-Evidence* in any Proposition is call'd *Intelligence*. It is our Knowledge of those first Principles of Truth which are (as it were) wrought into the very Nature and Make of our Minds: They are so evident in themselves to every Man who attends to them, that they need no Proof. It is the Prerogative and peculiar Excellence of these Propositions, that they can scarce ever be prov'd or denied: They cannot easily be *prov'd*, because there is nothing suppos'd to be more clear or certain, from which an Argument may be drawn to prove them. They cannot well be *denied*, because their own Evidence is so bright and convincing, that as soon as the Terms are understood the Mind necessarily assents: Such are these, *Whatsoever acteth hath a Being*; *Nothing has no Properties*; *a Part is less than the Whole*; *Nothing can be the Cause of itself.*

These Propositions are called *Axioms*, or *Maxims*, or *first Principles*; these are the very Foundations of all improv'd Knowledge and Reasonings, and on this Account these have been thought to be *innate Propositions*, or Truths born with us.

Some ſuppoſe that a great part of the Knowledge of Angels and human Souls in the ſeparate State is obtain'd in this manner, (*viz.*) by ſuch an immediate View of Things in their own Nature, which is call'd *Intuition*.

IV. *Reaſoning* is the next ſort of Evidence, and that is when one Truth is infer'd or drawn from others by natural and juſt Methods of Argument as, if there be much Light at Midnight, I infer, *it proceeds from the Moon*, becauſe the Sun is under the Earth. If I ſee a Cottage in a Foreſt, I conclude, *ſome Man has been there and built it.* Or when I ſurvey the Heavens and Earth, this gives Evidence to my Reaſon, that *there is a God who made them.*

The Propoſitions which I believe upon this kind of Evidence, are call'd *Concluſions*, or *rational Truths*, and the Knowledge that we gain this Way is properly call'd *Science.*

Yet let it be noted, that the Word *Science* is uſually applied to a whole Body of regular or methodical Obſervations or Propoſitions which learned Men have formed concerning any Subject of *Speculation*, deriving one Truth from another by a Train of Arguments. If this Knowledge chiefly directs our *Practice*, it is uſually call'd an *Art:* And this is the moſt remarkable Diſtinction between an *Art* and a *Science*, (*viz.*) the one refers chiefly to *Practice*, the other to *Speculation. Natural Philoſophy* or *Phyſicks*, and *Ontology* are *Sciences*, *Logick* and *Rhetorick* are call'd *Arts*; but *Mathematics* include both *Art* and *Science*; for they have much of *Speculation*, and much of *Practice* in them.

Obſerve

Observe here, that when the Evidence of a Proposition deriv'd from *Sense*, *Consciousness*, *Intelligence*, or *Reason* is firm and indubitable, it produces such an Assent as we call a *natural Certainty*.

V. When we derive the Evidence of any Proposition from the *Testimony* of others, it is call'd the *Evidence of Faith*; and this is a large Part of our Knowledge. Ten thousand Things there are which we believe merely upon the Authority or Credit of those who have spoken or written of them. It is by this Evidence that we know *there is such a Country as* China, and *there was such a Man as* Cicero *who dwelt in* Rome. It is by this that most of the Transactions in human Life are manag'd: We know our Parents and our Kindred by this Means, we know the Persons and Laws of our present Governors, as well as Things that are at a vast Distance from us in foreign Nations, or in ancient Ages.

According as the Persons that inform us of any thing are many or few, are more or less wise, and faithful, and credible, so our Faith is more or less firm or wavering, and the *Proposition believed* is either certain or doubtful; but in Matters of *Faith*, an exceeding great Probability is call'd a *moral Certainty*.

Faith is generally distinguish'd into *Divine* and *Human*, not with Regard to the *Propositions* that are believed, but with Regard to the *Testimony* upon which we believe them. When God reveals any thing to us, this gives us the Evidence of *Divine Faith*; but what Man only acquaints us with produces a *human Faith* in us; the one, being built upon the Word of Man, arises but to *moral Certainty*; but the other being founded on

the Word of *God*, ariſes to an *abſolute and infallible Aſſurance*, ſo far as we underſtand the Meaning of his Word. This is call'd *ſupernatural Certainty*.

Propoſitions which we believe upon the Evidence of *human Teſtimony* are call'd *Narratives*, *Relations*, *Reports*, *Hiſtorical Obſervations*, &c. but ſuch as are built on *Divine Teſtimony* are termed *Matters of Revelation*; and if they are of great Importance in Religion, they are call'd *Articles of Faith*.

There are ſome Propoſitions, or Parts of Knowledge, which are ſaid to be deriv'd from *Obſervation* and *Experience*, that is, Experience in ourſelves, and the Obſervations we have made on other Perſons or Things; but theſe are made up of ſome of the former Springs of Knowledge join'd together, *(viz.) Senſe*, *Conſciouſneſs*, *Reaſon*, *Faith*, &c. and therefore are not reckon'd a diſtinct kind of Evidence.

VI. *Inſpiration* is a ſort of Evidence diſtinct from all the former, and that is, when ſuch an overpowering Impreſſion of any Propoſition is made upon the Mind by God himſelf, that gives a convincing and indubitable Evidence of the Truth and Divinity of it: So were the *Prophets* and the *Apoſtles* inſpir'd *.

Sometimes God may have been pleaſed to make uſe of the outward Senſes, or the inward Workings of the Imagination, of Dreams, Apparitions, Viſions and Voices, or Reaſoning, or perhaps human Narration, to convey divine Truths to the Mind of the Prophet; but none of theſe would be ſufficient to deſerve the Name of Inſpiration,

* Note here, I ſpeak chiefly of the higheſt Kind of Inſpiration.

without

without a superior or Divine Light and Power attending them.

This sort of *Evidence* is also very distinct from what we usually call *Divine Faith*; for every common Christian exercises *Divine Faith* when he believes any Proposition which God has revealed in the Bible upon this Account, because *God has said it*, tho' it was by a Train of Reasonings that he was led to believe that *this is the Word of God:* Whereas in the Case of *Inspiration*, the Prophet not only exercises *Divine Faith*, in believing what God reveals, but he is under a superior heavenly Impression, Light, and Evidence, whereby he is assured that God reveals it. This is the most eminent kind of *supernatural Certainty*.

Tho' Persons might be assured of their own Inspiration by some *peculiar and inexpressible Consciousness* of this divine Inspiration and Evidence in their own Spirits, yet it is hard to make out this Inspiration to others, and to convince them of it, except by some antecedent or consequent Prophecies or Miracles, or some publick Appearances more than human.

The Propositions which are attain'd by this sort of Evidence are call'd *inspir'd Truths*. This is *Divine Revelation* at first hand, and the Dictates of God in an immediate manner, of which Theological Writers discourse at large; but since it belongs only to a few Favourites of Heaven to be inspir'd, and not the Bulk of Mankind, it is not necessary to speak more of it in a Treatise of Logick, which is design'd for the general Improvement of human Reason.

The various kinds of Evidence, upon which we believe any Proposition, afford us these three *Remarks*.

I. *Remark*

I. *Remark.* The same Proposition may be known to us by different kinds of Evidence: That *the whole is bigger than a part* is known by our *Senses*, and it is known by the *Self-Evidence of the Thing* to our Mind. *That God created the Heavens and the Earth* is known to us by *Reason*, and is known also by *Divine Testimony* or *Faith*.

II^d *Remark.* Among these various Kinds of Evidence, some are generally stronger than others in their own Nature, and give a better Ground for Certainty. *Inward Consciousness* and *Intelligence*, as well as *Divine Faith* and *Inspiration*, usually carry much more Force with them than *Sense* or *human Faith*, which are often fallible; tho' there are Instances wherein *human Faith*, *Sense* and *Reasoning* lay a Foundation also for compleat Assurance, and leave no room for Doubt.

Reason in its own Nature would always lead us into the Truth in Matters within its Compass, if it were us'd aright, or it would require us to suspend our Judgment where there is want of Evidence. But it is our *Sloth*, *Precipitancy*, *Sense*, *Passion*, and many other Things that lead our *Reason* astray in this degenerate and imperfect Estate: Hence it comes to pass that we are guilty of so many Errors in *Reasoning*, especially about divine Things, because our *Reason* either is busy to enquire, and resov'd to determine about Matters that are above our present Reach; or because we mingle many *Prejudices* and secret Influences of *Sense*, *Fancy*, *Passion*, *Inclination*, &c. with our Exercises of *Reason*, and judge and determine according to these irregular Influences.

Divine

Divine Faith would never admit of any Controversies or Doubtings, if we were but assur'd that God had spoken, and that we rightly understood his Meaning.

III[d] *Remark.* The greatest Evidence and Certainty of any Proposition does not depend upon the *Variety* of the Ways or Kinds of Evidence, whereby it is known, but rather upon the Strength and Degree of Evidence, and the Clearness of that Light in or by which it appears to the Mind. For a Proposition that is known only one Way may be much more certain, and have stronger Evidence than another that is suppos'd to be known many Ways. Therefore these Propositions, *Nothing has no Properties*, *Nothing can make itself*, which are known only by *Intelligence*, are much surer and truer than this Proposition, *The Rainbow has real and inherent Colours in it*, or than this, *the Sun rolls round the Earth*; tho' we seem to know both these last by our *Senses*, and by the common *Testimony of our Neighbours*. So any Proposition that is clearly evident to our own *Consciousness* or *Divine Faith*, is much more certain to us than a thousand others that have only the Evidence of feeble and obscure *Sensations*, of mere *probable Reasonings* and doubtful *Arguments*, or the *Witness* of fallible *Men*, or even tho' all these should join together.

CHAP.

CHAP. III.

The Springs of falſe Judgment, or the Doctrine of Prejudices.

INTRODUCTION.

IN the End of the foregoing Chapter we have ſurvey'd the ſeveral *Sorts of Evidence*, on which we build our Aſſent to Propoſitions. Theſe are indeed the general Grounds upon which we form our Judgments concerning Things. What remains in this *ſecond Part of Logick* is to point out the ſeveral *Springs and Cauſes of our Miſtakes* in judging, and to lay down ſome *Rules* by which we ſhould conduct ourſelves in paſſing a Judgment of every Thing that is propoſed to us.

I confeſs many Things which will be mentioned in theſe following Chapters might be as well refer'd to the *third Part of Logick*, where we ſhall treat of *Reaſoning* and *Argument*; for moſt of our *falſe Judgments* ſeem to include a ſecret *bad Reaſoning* in them; and while we ſhew the *Springs of Error*, and the *Rules of true Judgment*, we do at the ſame time diſcover which Arguments are fallacious, which Reaſonings are weak, and which are juſt and ſtrong. Yet ſince this is uſually called a *judging ill*, or *judging well*, I think we may without any Impropriety treat of it here; and this will lay a ſurer Foundation for all ſorts of *Ratiocination* and *Argument*.

Raſh Judgments are call'd *Prejudices*, and ſo are the Springs of them. This Word in common Life ſignifies an *ill Opinion which we have conceived*

conceived of some other Person, or some *Injury done to him*. But when we use the Word in Matters of Science, it signifies *a Judgment that is formed concerning any Person or Thing before sufficient Examination*; and generally we suppose it to mean a *false Judgment* or *Mistake:* At least, it is an Opinion taken up without solid Reason for it, or an Assent given to a Proposition before we have just Evidence of the Truth of it, tho' the thing itself may happen to be true.

Sometimes these rash Judgments are call'd *Prepossessions*, whereby is meant, that some particular Opinion has possessed the Mind, and engag'd the Assent without sufficient Search or Evidence of the Truth of it.

There is a vast Variety of these *Prejudices* and *Prepossessions* which attend Mankind in every Age and Condition of Life; they lay the Foundations of many an Error, and many an unhappy Practice, both in the Affairs of Religion, and in our civil Concernments, as well as in Matters of Learning. It is necessary for a Man who pursues Truth to enquire into these *Springs of Error*, that as far as possible he may rid himself of *old Prejudices*, and watch hourly against *new* ones.

The number of them is so great, and they are so interwoven with each other, as well as with the Powers of human Nature, that it is sometimes hard to distinguish them apart; yet for Method Sake we shall reduce them to these four general Heads, (*viz.*) Prejudices arising from *Things*, or from *Words*, from *our selves*, or from *other Persons*; and after the Description of each *Prejudice*, we shall propose one or more Ways of curing it.

Sect. I.

Prejudices arising from Things.

THE *first sort of Prejudices* are those which arise from *the Things themselves about which we judge.* But here let it be observed that there is nothing in the *Nature of Things* that will necessarily lead us into Error, if we do but use our Reason aright, and withhold our Judgment till there appear sufficient Evidence of Truth. But since we are so unhappily prone to take Advantage of every doubtful Appearance and Circumstance of Things to form a wrong Judgment, and plunge our selves into Mistake, therefore it is proper to consider what there is in the *Things themselves* that may occasion our Errors.

I. The *Obscurity of some Truths, and the Difficulty of searching them out,* is one Occasion of rash and mistaken Judgment.

Some Truths are *difficult* because they lye remote from the first Principles of Knowledge, and want a long Chain of Argument to come at them: Such are many of the deep Things of *Algebra* and *Geometry*, and some of the Theorems and Problems of most Parts of the *Mathematics.* Many Things also in *natural Philosophy* are dark and intricate upon this Account, because we cannot come at any certain Knowledge of them without the Labour of many and difficult, as well as chargeable Experiments.

There are other Truths which have great *Darkness* upon them, because we have no proper Means or *Mediums* to come at the Knowledge of them. Tho' in our Age we have found out many of the

deep Things of Nature by the Assistance of Glasses and other Instruments; yet we are not hitherto arrived at any sufficient Methods to discover the *Shape* of those little Particles of Matter which distinguish the various *Sapours*, *Odours* and *Colours* of *Bodies*; nor to find what sort of Atoms compose *Liquids* or *Solids*, and distinguish *Wood*, *Minerals*, *Metals*, *Glass*, *Stone*, &c. There is a *Darkness* also lies upon the Actions of the *intellectual* or *angelical* World; their Manners of Subsistence and Agency, the Power of Spirits to move Bodies, and the Union of our Souls with this animal Body of ours are much unknown to us on this Account.

Now in many of these Cases a great part of Mankind is not content to be entirely ignorant; but they rather choose to form rash and hasty Judgments, to guess at Things without just Evidence, to believe something concerning them before they can know them, and thereby they fall into Error.

This sort of *Prejudice*, as well as most others, is cured by *Patience* and *Diligence* in *Inquiry* and *Reasoning*, and a *Suspension of Judgment* till we have attain'd some proper *Mediums* of Knowledge, and till we see sufficient Evidence of the Truth.

II. *The Appearance of Things in a Disguise* is another Spring of *Prejudice* or rash Judgment. The outside of Things which first strikes us is oftentimes different from their inward Nature, and we are tempted to judge suddenly according to outward Appearances. If a *Picture* is daub'd with many bright and glaring Colours, the vulgar Eye admires it as an excellent Piece; whereas the same Person judges very contemptuously of

ſome admirable Deſign ſketch'd out only with a black Pencil on a coarſe Paper, tho' by the Hand of *Raphael*. So the Scholar ſpies the Name of a new Book in a publick News-Paper, he is charmed with the Title, he purchaſes, he reads with huge Expectations, and finds it all Traſh and Impertinence: This is a Prejudice deriv'd from the *Appearance*; we are too ready to judge that Volume valuable which had ſo good a Frontiſpiece. The large Heap of *Encomiums* and ſwelling Words of Aſſurance that are beſtowed on *Quack Medicines* in publick Advertiſements tempt many a Reader to judge them infallible, and to uſe the Pills or the Plaiſter with vaſt Hope and frequent Diſappointment.

We are tempted to form our Judgment of *Perſons* as well as *Things* by theſe outward *Appearances*. Where there is *Wealth*, *Equipage* and *Splendor* we are ready to call that *Man happy*, but we ſee not the vexing Diſquietudes of his Soul: And when we ſpy a Perſon in *ragged Garments*, we form a deſpicable Opinion of him too ſuddenly; we can hardly think him either *happy* or *wiſe*, our Judgment is ſo ſtrangely biaſs'd by outward and ſenſible Things. It was thro' the Power of this Prejudice that the *Jews* rejected our bleſſed Saviour; they could not ſuffer themſelves to believe that the Man who appear'd as the *Son of a Carpenter* was alſo the *Son of God*. And becauſe St. *Paul* was of a little Stature, a mean Preſence, and his Voice contemptible, ſome of the *Corinthians* were tempted to doubt whether he were inſpired or no.

This *Prejudice* is cur'd by a *longer Acquaintance with the World*, and *a juſt Obſervation that Things are ſometimes better and ſometimes worſe than they appear to be.* We ought therefore to reſtrain our exceſſive Forwardneſs to form our Opinion

pinion of Persons or Things before we have Opportunity to search into them more perfectly. Remember that a *grey Beard does not make a Philosopher*; *all is not Gold that glisters*; and *a rough Diamond may be worth an immense Sum.*

III. *A Mixture of different Qualities in the same thing* is another Temptation to judge amiss. We are ready to be carried away by that Quality which strikes the *first* or the *strongest Impressions* upon us, and we judge of the whole Object according to that Quality, regardless of all the rest; or sometimes we colour over all the other Qualities with that one Tincture, whether it be bad or good.

When we have just reason to admire a *Man* for his *Virtues*, we are sometimes inclin'd not only to neglect his *Weaknesses*, but even to put a good Colour upon them, and to think them amiable. When we read a *Book* that has many excellent Truths in it and Divine Sentiments, we are tempted to approve not only that whole Book, but even all the Writings of that Author. When a *Poet*, an *Orator* or a *Painter* has perform'd admirably in several illustrious Places, we sometimes also admire his very Errors, we mistake his Blunders for Beauties, and are so ignorantly fond as to copy after them.

It is this Prejudice that has render'd so many great Scholars perfect *Bigots*, and inclin'd them to defend *Homer* or *Horace*, *Livy* or *Cicero*, in all their Mistakes, and vindicate all the Follies of their favourite Author. It is this that tempts some great Writers to support the Sayings of almost all the *antient Fathers of the Church*, and admire them even in their very *Reveries*.

On the other hand, if an Author has profeſs'd *heretical* Sentiments in Religion, we throw our Scorn upon every thing he writes, we deſpiſe even his *critical* or *mathematical* Learning, and will hardly allow him common Senſe. If a *Poem* has ſome Blemiſhes in it, there is a Set of falſe Criticks who decry it univerſally, and will allow no Beauties there.

This ſort of *Prejudice* is relieved by learning to diſtinguiſh Things well, and not to *judge in the Lump*. There is ſcarce any Thing in the World of Nature or Art, in the World of Morality or Religion, that is perfectly uniform. There is a *Mixture* of Wiſdom and Folly, Vice and Virtue, Good and Evil, both in Men and Things. We ſhould remember that ſome Perſons have *great Wit* and *little Judgment*; others are judicious, but not witty. Some are *good humour'd without Compliment*; others have all the formalities of Complaiſance, but no good Humour. We ought to know that one Man may be *vicious* and *learned*, while another has Virtue without Learning: That many a Man *thinks* admirably *well* who has a *poor utterance*; while others have a charming manner of Speech, but their Thoughts are trifling and impertinent. Some are *good Neighbours*, and courteous and charitable toward Men who have *no Piety toward God*; others are truly religious, but of a moroſe natural Temper. Some *excellent Sayings* are found in very *ſilly Books*, and ſome ſilly Thoughts appear in Books of Value. We ſhould neither *praiſe nor diſpraiſe by Wholeſale*, but ſeparate the Good from the Evil, and judge of them apart: The Accuracy of a good Judgment conſiſts much in making ſuch Diſtinctions.

Yet

Yet let it be noted too, that in common Discourse we usually denominate Persons and Things according to the major Part of their Character. He is to be call'd a *wise Man* who has but few Follies: He is a *good Philosopher* who knows much of Nature, and for the most Part reasons well in Matters of human Science: And that *Book* should be esteem'd *well written*, which has much more of good Sense in it than it has of Impertinence.

IV. Tho' a Thing be uniform in its own Nature, yet the *different Lights in which it may be placed, and the different Views in which it appears to us*, will be ready to excite in us mistaken Judgments concerning it. Let an erect *Cone* be placed in a horizontal Plane, at a great Distance from the Eye, and it appears a plain *Triangle*; but we shall judge that very *Cone* to be nothing but a *flat Circle*, if its *Base* be obverted towards us. Set a *common round Plate* a little *obliquely* before our Eye afar off, and we shall think it an *oval* Figure; but if the very *Edge* of it be turned towards us, we shall take it for a *strait Line*. So when we view the several Folds of a *changeable Silk*, we pronounce this Part *red*, and that *yellow*, because of its different Position to the Light, tho' the Silk laid smooth in one Light appears all of one Colour.

When we survey the Miseries of Mankind, and think of the Sorrows of Millions, both on Earth and in Hell, the *Divine Government* has a *terrible Aspect*, and we may be tempted to think hardly even of God himself: But if we view the Profusion of his Bounty and Grace amongst his Creatures on Earth, or the happy Spirits in Heaven, we shall have so *exalted* an *Idea of his Goodness* as to forget his Vengeance. Some Men dwell en-

tirely upon the Promiſes of his Goſpel, and think him all *Mercy:* Others under a melancholy Frame, dwell upon his Terrors and his Threatnings, and are overwhelmed with the Thought of his *Severity* and *Vengeance*, as tho' there were no Mercy in him.

The true Method of delivering ourſelves from this *Prejudice* is to view a thing on all ſides, to compare all the various Appearances of the ſame thing with one another, and let each of them have its full Weight in the Balance of our Judgment, before we fully determine our Opinion. It was by this Means that the modern Aſtronomers came to find out that the Planet *Saturn* hath a *flat broad Circle round its Globe*, which is call'd its *Ring*, by obſerving the different Appearances as a *narrow* or a *broader Oval*, or as it ſometimes ſeems to be a *ſtrait Line*, in the different Parts of its twenty nine Years Revolution thro the *Ecliptic*. And if we take the ſame juſt and religious Survey of the *great and bleſſed God* in all the Diſcoveries of his Vengeance and his Mercy, we ſhall at laſt conclude him to be both *juſt* and *good*.

V. The *caſual Aſſociation of many of our Ideas* becomes the Spring of another Prejudice or raſh Judgment, to which we are ſometimes expos'd. If in our younger years we have taken *Medicines* that have been *naufeous*, when any Medicine whatſoever is afterward propos'd to us under Sickneſs, we immediately judge it *naufeous:* Our Fancy has ſo cloſely join'd theſe Ideas together, that we know not how to ſeparate them: Then the Stomach feels the Diſguſt, and perhaps refuſes the only Drug that can preſerve Life. So a Child who has been let Blood joins the Ideas of *Pain* and the *Surgeon* together, and he hates the Sight of

of the *Surgeon*, because he thinks of his *Pain:* Or if he has drunk a *bitter Potion*, he conceives a bitter Idea of the *Cup* which held it, and will drink nothing out of that *Cup*.

It is for the same Reason that the Bulk of the common People are so superstitiously fond of the *Psalms* translated by *Hopkins* and *Sternhold*, and think them sacred and divine, because they have been now for more than an hundred Years bound up in the same Covers with our Bibles.

The best Relief against this *Prejudice of Association* is to consider, whether there be any natural and necessary Connection between those Ideas which *Fancy*, *Custom*, or *Chance* hath thus join'd together: And if *Nature* has not join'd them, let our Judgment correct the Folly of our *Imagination*, and separate these Ideas again.

Sect. II.

Prejudices arising from Words.

OUR *Ideas* and *Words* are so linkt together, that while we judge of *Things* according to *Words*, we are led into several Mistakes. These may be distributed under two general Heads, (*viz.*) Such as arise from *single Words or Phrases*, or such as arise from *Words join'd in Speech, and composing a Discourse.*

I. The most eminent and remarkable Errors of the first Kind, are these three. (1.) When our Words, are *insignificant, and have no Ideas*; as when the mystical Divines talk of the *Prayer of Silence*, the *supernatural and passive Night of the Soul*, the *Vacuity of Powers*, the *Suspension of all Thoughts:* Or (2.) When our Words are *equivocal*,

al, and signify two or more Ideas, as the Words *Law*, *Light*, *Flesh*, *Spirit*, *Righteousness*, and many other Terms in Scripture: Or (3.) When two or three Words are *synonymous*, and signify one Idea, as *Regeneration* and *new Creation* in the new Testament; both which mean only a *Change of the Heart from Sin to Holiness*; or as the *Elector of Cologn* and the *Bishop of Cologn* are two Titles of the same Man.

These kinds of Phrases are the Occasions of various Mistakes; but none so unhappy as those in *Theology*: For both *Words without Ideas*, as well as *synonymous* and *equivocal Words*, have been us'd and abus'd by the Humours, Passions, Interests, or by the real Ignorance and Weakness of Men to beget terrible Contests among Christians.

But to relieve us under all those Dangers, and to remove these *sorts of Prejudices* which arise from *single Words* or *Phrases*, I must remit the Reader to *Part* I. *Chap.* 4. where I have treated about *Words*, and to those *Directions* which I have given concerning the *Definition of Names*, *Part* I. *Chap.* 6. *Sect.* 3.

II. There is another sort of false Judgments or Mistakes which we are expos'd to by *Words*; and that is, when they *are joined in Speech, and compose a Discourse*; and here we are in Danger two Ways.

The one is, when a Man writes good Sense, or speaks much to the Purpose, but he has not a happy and engaging manner of Expression. Perhaps he uses coarse and vulgar Words, or old, obsolete, and unfashionable Language, or Terms and Phrases that are foreign, latiniz'd, scholastick, very uncommon, and hard to be understood: And this

this is still worse, if his Sentences are long and intricate, or the Sound of them harsh and grating to the Ear. All these indeed are *Defects in Style*, and lead some nice and unthinking Hearers or Readers into an ill Opinion of all that such a Person speaks or writes. Many an excellent Discourse of our Forefathers has had Abundance of Contempt cast upon it by our modern Pretenders to Sense, for want of their distinguishing between the *Language* and the *Ideas*.

On the other hand, when a *Man of Eloquence* speaks or writes upon any Subject, we are too ready to run into his Sentiments, being sweetly and insensibly drawn by the Smoothness of his Harangue, and the pathetic Power of his Language. *Rhetorick* will varnish every *Error* so that it shall appear in the Dress of *Truth*, and put such Ornaments upon *Vice* as to make it look like *Virtue*: It is an Art of wondrous and extensive Influence; it often conceals, obscures or overwhelms the Truth, and places sometimes a gross Falshood in a most alluring Light. The Decency of Action, the Musick of the Voice, the Harmony of the Periods, the Beauty of the Stile, and all the engaging Airs of the Speaker have often charm'd the Hearers into Error, and persuaded them to approve whatsoever is propos'd in so agreeable a manner. A large Assembly stands expos'd at once to the Power of these Prejudices, and imbibes them all. So *Cicero* and *Demosthenes* made the *Romans* and the *Athenians* believe almost whatsoever they pleased.

The best Defence against both these Dangers is to learn the Skill (as much as possible) of *separating our Thoughts and Ideas from Words and Phrases*, to judge of Things in their own Natures, and in their natural or just Relation to one another,

ther abſtracted from the Uſe of Language, and to maintain a ſteady and obſtinate Reſolution to hearken to nothing but Truth, in whatſoever Style or Dreſs it appears.

Then we ſhall hear a Sermon of pious and juſt Sentiments with Eſteem and Reverence, tho' the Preacher has but an unpoliſh'd Style, and many Defects in the manner of his Delivery. Then we ſhall neglect and diſregard all the flattering Inſinuations whereby the *Orator* would make Way for his own Sentiments to take Poſſeſſion of our Souls, if he has not ſolid and inſtructive Senſe equal to his Language. *Oratory* is a happy Talent when it is rightly employ'd to excite the Paſſions to the Practice of Virtue and Piety; but to ſpeak properly, this *Art* has nothing to do in the *Search after Truth.*

Sect. III.

Prejudices ariſing from ourſelves.

NEither *Words* nor *Things* would ſo often lead us aſtray from Truth, if we had not within our ſelves ſuch Springs of Error as theſe that follow.

I. Many Errors are deriv'd from our *Weakneſs of Reaſon*, and *Incapacity to judge of Things in our infant State.* Theſe are call'd the *Prejudices of Infancy.* We frame early Miſtakes about the common Objects which ſurround us, and the common Affairs of Life: We fancy *the Nurſe is our beſt Friend*, becauſe Children receive from their Nurſes their Food and other Conveniences of Life. We judge that *Books are very unpleaſant Things*, becauſe perhaps we have been driven to them

them by the Scourge. We judge also that the *Skie touches the distant Hills*, because we cannot inform our selves better in Childhood. We believe the *Stars are not risen till the Sun is set*, because we never see them by Day. But some of these Errors may seem to be deriv'd from the next Spring.

The Way to cure the *Prejudices of Infancy* is to distinguish, as far as we can, which are those Opinions which we fram'd in perfect Childhood, to remember that at that Time our Reason was incapable of forming a right Judgment, and to bring these Propositions again to be examined at the Bar of maturer Reason.

II. *Our Senses* give us many a false Information of Things, and tempt us to judge amiss. This is call'd the *Prejudice of Sense*, as when we suppose the *Sun and Moon to be flat Bodies*, and to be but *a few Inches broad*, because they appear so to the Eye. Sense inclines us to judge that *Air has no Weight*, because we don't feel it press heavy upon us; and we judge also by our Senses that *Cold* and *Heat*, *Sweet* and *Sour*, *Red* and *Blue*, *&c.* are such real Properties in the Objects themselves, and exactly like those Sensations which they excite in us.

Note, Those Mistakes of this sort which all Mankind drop and lose in their advancing Age are call'd mere *Prejudices of Infancy*, but those which abide with the vulgar Part of the World, and generally with all Men, till Learning and Philosophy cure them, more properly retain the Name of *Prejudices of Sense*.

These *Prejudices* are to be remov'd several Ways. (1.) By the Assistance of one Sense we cure the Mistakes of another, as when a *Stick thrust into*

the Water ſeems crooked, we are prevented from judging it to be really ſo in itſelf, for when we take it out of the *Water*, both our Sight and our Feeling agree and determine it to be ſtrait. (2.) The Exerciſe of our Reaſon, and an Application to mathematical and philoſophical Studies, cures many other *Prejudices of Senſe* both with Relation to the *heavenly* and *earthly* Bodies. (3.) We ſhould remember that our Senſes have often deceiv'd us in various Inſtances, that they give but a confus'd and imperfect Repreſentation of things in many Caſes, that they often repreſent falſly thoſe very Objects to which they ſeem to be ſuited, ſuch as the *Shape*, *Motion*, *Size* and *Situation* of groſs Bodies, if they are but placed at a Diſtance from us; and as for the minute Particles of which Bodies are compos'd, our Senſes cannot diſtinguiſh them. (4.) We ſhould remember alſo that one prime and original Deſign of our *Senſes* is to inform us what various Relations the Bodies that are round about us bear to our own animal Body, and to give us Notice what is pleaſant and uſeful, or what is painful and injurious to us; but they are not ſufficient of themſelves to lead us into a philoſophical Acquaintance with the inward Nature of Things. It muſt be confeſs'd it is by the Aſſiſtance of the *Eye* and the *Ear* eſpecially (which are call'd the *Senſes of Diſcipline*) that our Minds are furniſh'd with various Parts of Knowledge, by reading, hearing, and obſerving Things divine and human; yet *Reaſon* ought always to accompany the Exerciſe of our *Senſes* whenever we would form a juſt Judgment of Things propos'd to our Enquiry.

Here it is proper to obſerve alſo, that as the *Weakneſs of Reaſon* in our *Infancy*, and the *Dictates of our Senſes* ſometimes in *advancing Years*, lead

lead the wiser part of Mankind astray from Truth; so the meaner Parts of our Species, Persons whose Genius is very low, whose Judgment is always weak, who are ever indulging the *Dictates of Sense and Humour*, are but Children of a larger Size; they stand expos'd to everlasting Mistakes in Life, and live and die in the midst of *Prejudices*.

III. *Imagination* is another fruitful Spring of *false Judgments*. Our *Imagination* is nothing else but the various Appearances of our sensible Ideas in the Brain, where the Soul frequently works in uniting, disjoining, multiplying, magnifying, diminishing and altering the several Shapes, Colours, Sounds, Motions, Words and Things that have been communicated to us by the outward Organs of Sense. It is no wonder therefore if *Fancy* lead us into many Mistakes, for it is but *Sense at second-hand*. Whatever is strongly impress upon the *Imagination* some Persons believe to be true. Some will choose a particular *Number in a Lottery*, or lay a large Wager on a *single Chance of a Dye*, and doubt not of Success, because their *Fancy* feels so powerful an Impression, and assures them it will be prosperous. A thousand *pretended Prophesies* and *Inspirations*, and all the *Freaks of Enthusiasm* have been derived from this Spring. *Dreams* are nothing else but the Deceptions of Fancy: A *Delirium* is but a short Wildness of the Imagination; and a settled Irregularity of Fancy is *Distraction* and *Madness*.

One Way to gain a Victory over this unruly Faculty, is to set a Watch upon it perpetually, and to bridle it in all its Extravagances; never to believe any thing merely because *Fancy* dictates it any more than I would believe a *Midnight Dream*,

nor

nor to truſt *Fancy* any farther than it is attended with *ſevere Reaſon*. It is a very uſeful and entertaining Power of human Nature in Matters of *Illuſtration*, *Perſuaſion*, *Oratory*, *Poeſy*, *Wit*, *Converſation*, *&c.* but in the calm Enquiry after Truth and final Judgment of Things *Fancy* ſhould retire, and ſtand aſide, unleſs it be call'd in to explain or illuſtrate a difficult Point by a Similitude.

Another Method of Deliverance from theſe *Prejudices of Fancy*, is to compare the *Ideas* that ariſe in our *Imaginations* with the *real Nature of Things*, as often as we have occaſion to judge concerning them; and let calm and ſedate *Reaſon* govern and determine our Opinions, tho' *Fancy* ſhould ſhew never ſo great a Reluctance. *Fancy* is the inferior Faculty, and it ought to obey.

IV. *The various Paſſions or Affections of the Mind* are numerous and endleſs Springs of *Prejudice*. They diſguiſe every Object they converſe with, and put their own Colours upon it, and thus lead the Judgment aſtray from Truth. It is *Love* that makes the Mother think her own Child the faireſt, and will ſometimes perſuade us that a *Blemiſh is a Beauty*. *Hope* and *Deſire* make an Hour of Delay ſeem as long as two or three Hours; *Hope* inclines us to think there is nothing too difficult to be attempted; *Deſpair* tells us that a brave Attempt is mere Raſhneſs, and that every Difficulty is unſurmountable. *Fear* makes us imagine that a Buſh ſhaken with the Wind has ſome ſavage Beaſt in it, and multiplies the Dangers that attend our Path: But ſtill there is a more unhappy Effect of *Fear* when it keeps Millions of Souls in Slavery to the Errors of an eſtabliſhed Religion: What could perſuade the wiſe Men

Men and Philosophers of a *Popish* Country to believe the gross Absurdities of the *Roman* Church, but the *Fear of Torture* or *Death*, the *Galleys* or the *Inquisition? Sorrow* and *Melancholy* tempt us to think our Circumstances much more dismal than they are, that we may have some Excuse for Mourning: And *Envy* represents the Condition of our Neighbour better than it is, that there might be some Pretence for her own Vexation and Uneasiness. *Anger* and *Wrath* and *Revenge*, and all those hateful Passions excite in us far worse Ideas of Men than they deserve, and persuade us to believe all that is ill of them. A Detail of the Evil Influence of the *Affections of the Mind* upon our Judgment would make a large Volume.

The Cure of these *Prejudices* is attain'd by a constant Jealousy of our selves, and Watchfulness over our *Passions*, that they may never interpose when we are call'd to pass a Judgment of any thing: And when our Affections are warmly engaged, let us abstain from judging. It would be also of great Use to us to form our deliberate Judgments of Persons and Things in the calmest and serenest Hours of Life, when the *Passions of Nature* are all silent, and the Mind enjoys its most perfect Composure: And these Judgments so formed should be treasur'd up in the Mind, that we might have Recourse to them in Hours of Need.

V. The *Fondness we have for* SELF, and the *Relation which other Persons and Things have to our Selves*, furnish us with another long Rank of *Prejudices*. This indeed might be reduced to the *Passion of Self-Love*, but it is so copious an Head that I chose to name it as a distinct Spring of false Judgments. We are generally ready to fancy every thing of *our own* has some-

thing peculiarly valuable in it, when indeed there is no other Reaſon, but becauſe it is *our own.* Were we born amongſt the Gardens of *Italy*, the Rocks of *Switzerland*, or the *Ice* and Snows of *Ruſſia* and *Sweden*, ſtill we ſhould imagine peculiar Excellencies in our native Land. We conceive a good Idea of the *Town* and *Village* where we firſt breathed, and think the better of a Man for being born near us. We entertain the beſt Opinion of the Perſons of *our own Party*, and eaſily believe evil Reports of Perſons of a *different Sect or Faction.* Our *own Sex*, *our Kindred*, *our Houſes*, and *our very Names*, ſeem to have ſomething good and deſirable in them. We are ready to mingle all theſe with *our ſelves*, and cannot bear to have others think meanly of them.

So good an Opinion have we of *our own Sentiments* and *Practices*, that it is very difficult to believe what a Reprover ſays of our Conduct; and we are as ready to aſſent to all the Language of Flattery. We ſet up *our own Opinions* in Religion and Philoſophy as the Teſts of *Orthodoxy* and *Truth*; and we are prone to judge every Practice of other Men either a *Duty* or a *Crime* which we think would be a *Crime* or a *Duty* to us, tho' their Circumſtances are vaſtly different from our own. This Humour prevails ſometimes to ſuch a Degree, that we would make *our own Taſte* and *Inclination* the Standard by which to judge of every Diſh of Meat that is ſet upon the Table, every Book in a Library, every Employment, Study and Buſineſs of Life, as well as every Recreation.

It is from this evil Principle of *ſetting up* ſelf *for a Model what other Men ought to be*, that the *Antichriſtian* Spirit of *Impoſition* and *Perſecution* had its Original: tho' there is no more Reaſon for

for it than there was for the Practice of that Tyrant, who having a Bed fit for his own Size, was reported to stretch Men of low Stature upon the Rack, till they were drawn out to the Length of his Bed; and some add also that he cut off the Legs of any whom he found too long for it.

It is also from a Principle near akin to this that we pervert and strain the Writings of any venerable Authors, and especially the sacred Books of Scripture to make them speak *our own Sense*. Thro' the Influence which *our own Schemes* or *Hypotheses* have upon the Mind, we sometimes become so sharp-sighted as to find these Schemes in those Places of Scripture where the holy Writers never thought of them, nor the holy Spirit intended them. At other times this *Prejudice* brings such a Dimness upon the Sight, that we cannot read any thing that opposes our own Scheme, tho' it be written as with Sun-beams, and in the plainest Language; and perhaps we are in Danger in such a Case of *winking* a little against the Light.

We ought to bring our Minds free, unbiass'd and teachable to learn our Religion from the Word of God; but we have generally form'd all the lesser as well as the greater Points of our Religion beforehand, and then we read the Prophets and Apostles only to persuade them to confirm our own Opinions. Were it not for this Influence of *Self*, and a Bigotry to our own Tenets, we could hardly imagine that so many strange, absurd, inconsistent, wicked, mischievous, and bloody Principles should pretend to support and defend themselves by the *Gospel of Christ*.

Every learned *Critick* has *his own* Hypothesis; and if the *common Text* be not favourable to his Opinion, a *various Lection* shall be made authen-

tick. The Text must be suppos'd to be *defective* or *redundant*, and the Sense of it shall be *literal* or *metaphorical*, according as it best supports his own Scheme. Whole Chapters or Books shall be *added* or *left out* of the sacred Canon, or be turn'd into *Parables* by this Influence. *Luther* knew not well how to reconcile the Epistle of St. *James* to the Doctrine of *Justification by Faith alone*, and so he could not allow it to be Divine. The *Papists* bring all the *Apocrypha* into their Bible, and stamp Divinity upon it; for they can fancy Purgatory is there and they find Prayers for the Dead. But they leave out the *second Commandment because it forbids the Worship of Images.* Others suppose the *Mosaick History of the Creation and the Fall of Man* to be oriental Ornaments, or a mere *Allegory*, because the literal Sense of those three Chapters of *Genesis* don't agree with their Theories. Even an honest plain-hearted and unlearned *Christian* is ready to find something in every Chapter of the Bible, to countenance his own private Sentiments; but he loves those Chapters best which speak his own Opinions plainest: This is a *Prejudice* that sticks very close to our Natures; the *Scholar* is infested with it daily, and the *Mechanick* is not free.

Self has yet a farther and pernicious Influence upon our Understandings, and is an unhappy Guide in the Search after Truth. When *our own Inclination*, or *our Ease*, *our Honour* or *our Profit* tempts us to the Practice of any thing of suspected Lawfulness, how do we strain our Thoughts to find Arguments for it, and persuade our selves it is lawful: We colour over Iniquity and sinful Compliance with the Names of *Virtue* and *Innocence*, or at least of *Constraint* and *Necessity*. All the different and opposite Sentiments and Practices

ces of Mankind are too much influenced by this mean Bribery, and give too just Occasion for satyrical Writers to say that *Self-Interest governs all Mankind*.

When the *Judge* had awarded due Damages to a Person into whose Field a Neighbour's Oxen had broke, it is reported that he reversed his own Sentence, when he heard that the Oxen which had done this Mischief were *his own*. Whether this be a *History* or a *Parable*, it is still a just Representation of the wretched Influence of *Self* to corrupt the Judgment.

One Way to amend this *Prejudice* is to thrust *Self* so far out of the Question that it may have no manner of Influence whensoever we are call'd to judge and consider the naked Nature, Truth and Justice of Things. In Matters of Equity between Man and Man, our Saviour has taught us an effectual Means of guarding against this Prejudice, and that is to put *my Neighbour* in the Place of *my Self*, and *my Self* in the Place of *my Neighbour*, rather than be brib'd by this corrupt Principle of *Self-Love* to do Injury to our Neighbours. Thence arises that Golden Rule *of dealing with others as we would have others deal with us*.

In the Judgment of *Truth* and *Falshood*, *Right* and *Wrong*, *Good* and *Evil*, we ought to consider that every Man has a SELF as well as we; and that the Tastes, Passions, Inclinations and Interests of different Men are very different, and often contrary, and that they dictate contrary Things: Unless therefore all manner of different and contrary Propositions could be true at once, *Self* can never be a just Test or Standard of *Truth* and *Falshood*, *Good* and *Evil*.

VI. The *Tempers*, *Humours*, and *peculiar Turns of the Mind*, whether they be natural or acquir'd, have a great Influence upon our Judgment, and become the Occasion of many *Mistakes*. Let us survey a few of them.

(1.) Some Persons are of an *easy* and *credulous Temper*, while others are perpetually discovering a *Spirit of Contradiction*.

The *credulous Man* is ready to receive every thing for Truth, that has but a Shadow of Evidence; every new Book that he reads, and every ingenious Man with whom he converses, has Power enough to draw him into the Sentiments of the Speaker or Writer. He has so much Complaisance in him, or Weakness of Soul, that he is ready to resign his own Opinion to the first Objection which he hears, and to receive any Sentiments of another that are asserted with a positive Air and much Assurance. Thus he is under a kind of Necessity, thro' the Indulgence of this credulous Humour, either to be often changing his Opinions, or to believe Inconsistencies.

The *Man of Contradiction* is of a contrary Humour, for he stands ready to oppose every thing that is said: he gives a slight Attention to the Reasons of other Men, from an inward scornful Presumption that they have no Strength in them. When he reads or hears a Discourse different from his own Sentiments, he does not give himself leave to consider whether that Discourse may be true; but employs all his Powers immediately to confute it. Your *great Disputers* and your *Men of Controversy* are in continual Danger of this sort of Prejudice: they contend often for Victory, and will maintain whatsoever they have asserted, while Truth is lost in the Noise and Tumult of reci-

procal

procal Contradictions; and it frequently happens that a *Debate about Opinions* is turned into a *mutual Reproach of Persons.*

The *Prejudices of Credulity* may in some Measure be cur'd by learning to set a high Value on Truth, and by taking more Pains to attain it; remembring that Truth oftentimes lies dark and deep, and requires us to dig for it as for hid Treasure; and that Falshood often puts on a fair Disguise, and therefore we should not yield up our Judgment to every plausible Appearance. It is no part of *Civility* or *good Breeding* to part with Truth, but to maintain it with *Decency* and *Candor.*

A Spirit of Contradiction is so pedantick and hateful that a Man should take much Pains with himself to watch against every Instance of it: He should learn so much *good Humour* at least as never to oppose any thing without just and solid Reason for it: He should abate some Degrees of *Pride* and *Moroseness*, which are never failing Ingredients in this sort of Temper, and should seek after so much *Honesty* and *Conscience* as never to contend for Conquest or Triumph; but to review his own Reasons, and to read the Arguments of his Opponents (if possible) with an equal Indifferency, and be glad to spy Truth, and to submit to it, tho' it appear on the opposite Side.

(2.) There is another *Pair of Prejudices* deriv'd from *two Tempers* of Mind, near akin to those I have just mention'd; and these are the *dogmatical* and the *sceptical Humour*, *i.e.* always *positive*, or always *doubting.*

By what means soever the *Dogmatist* came by his Opinions, whether by his Senses, or by his Fancy, his Education, or his own Reading, yet he believes them all with the same Assurance that

he does a *mathematical Truth*; he has ſcarce any mere *Probabilities* that belong to him; every thing with him is *certain* and *infallible*; every Punctilio in Religion is an Article of his Faith, and he anſwers all manner of Objections by a ſovereign Contempt.

Perſons of this Temper are ſeldom to be convinced of any Miſtake: A full Aſſurance of their own Notions makes all the Difficulties of their own Side vaniſh ſo entirely, that they think every Point of their Belief is written as with Sunbeams, and wonder any one ſhould find a Difficulty in it. They are amaz'd that learned Men ſhould make a Controverſy of what is to them ſo perſpicuous and indubitable. The loweſt Rank of People both in learned and in vulgar Life is very ſubject to this Obſtinacy.

Scepticiſm is a contrary Prejudice. The *Dogmatiſt* is ſure of every thing, and the *Sceptick* believes nothing. Perhaps he has found himſelf often miſtaken in Matters of which he thought himſelf well aſſur'd in his younger Days, and therefore he is afraid to give Aſſent to any thing again. He ſees ſo much Shew of Reaſon for every Opinion, and ſo many Objections alſo ariſing againſt every Doctrine, that he is ready to throw off the Belief of every thing: He renounces at once the Purſuit of Truth, and contents himſelf to ſay, *There is nothing certain.* It is well if thro' the Influence of ſuch a Temper he does not caſt away his Religion as well as his Philoſophy, and abandon himſelf to a profane Courſe of Life, regardleſs of Hell and Heaven.

Both theſe *Prejudices* laſt mention'd, tho' they are ſo oppoſite to each other, yet they ariſe from the ſame Spring, and that is, *Impatience of Study, and Want of diligent Attention in the Search of Truth.*

Truth. The *Dogmatist* is in haste to believe something; he can't keep himself long enough in Suspence till some bright and convincing Evidence appear on one Side; but throws himself casually into the Sentiments of one Party or another, and then he will hear no Argument to the contrary. The *Sceptick* will not take Pains to search Things to the Bottom, but when he sees Difficulties on both Sides resolves to believe neither of them. *Humility of Soul*, *Patience in Study*, *Diligence in Enquiry*, with an *honest Zeal for Truth*, would go a great way towards the Cure of both these Follies.

(3.) Another sort of *Temper* that is very injurious to a right Judgment of things is an *inconstant*, *fickle*, *changeable Spirit*, and a *very uneven Temper of Mind.* When such Persons are in one Humour, they pass a Judgment of Things agreeable to it; when their Humour changes, they reverse their first Judgment, and embrace a new Opinion. They have no *Steadiness of Soul*; they want *Firmness of Mind* sufficient to establish themselves in any Truth, and are ready to change it for the next alluring Falshood that is agreeable to their Change of Humour. This *Fickleness* is sometimes so mingled with their very Constitution by Nature or by Distemper of Body, that a *cloudy Day* and a *lowring Skie* shall strongly incline them to form an Opinion, both of themselves and of Persons and Things round about them, quite different from what they believe when the *Sun shines* and the *Heavens are serene.*

This sort of People ought to judge of Things and Persons in their most sedate, peaceful and composed Hours of Life, and reserve these Judgments for their Conduct at more unhappy Seasons.

(4.) Some

(4.) Some Persons have a *violent and turgid Manner both of Talking and Thinking*; whatsoever they judge of, it is always with a Tincture of this Vanity. They are always in Extremes, and pronounce concerning every thing in the Superlative. If they think a Man to be learned, *he is the chief Scholar of the Age*; if another has low Parts, *he is the greatest Blockhead in Nature:* If they approve any Book on divine Subjects, *it is the best Book in the World next to the Bible*; if they speak of a Storm of Rain or Hail, *it is the most terrible Storm that fell since the Creation*; and a cold Winter Day is *the coldest that ever was known.*

But the Men of this swelling Language ought to remember that Nature has ten thousand *moderate* Things in it, and does not always deal in *Extremes* as they do.

(5.) I think it may be call'd another sort of *Prejudices deriv'd from Humour*, when some Men believe a *Doctrine merely because it is ancient* and has been long believ'd; others are so fond of *Novelty*, that nothing prevails upon their Assent so much as *new Thoughts and new Notions.* Again, there are some who set a high Esteem upon every thing that is *foreign*, and *far-fetch'd*; therefore *China Pictures* are admir'd, how aukward soever: Others value Things the more for being of our own *native Growth*, *Invention*, or *Manufacture*, and these as much despise *foreign* Things.

Some *Men of Letters and Theology* will not believe a Proposition even concerning a sublime Subject, till every thing mysterious, deep and difficult is cut off from it, tho' the Scripture asserts it never so plainly; others are so fond of a *Mystery* and Things *incomprehensible*, that they would scarce believe the Doctrine of the *Trinity* if it could be explain'd; they incline to that foolish

Rant

Rant of one of the Antients, *Credo quia impossibile est*; I believe it because it is impossible.

To cure these Mistakes remember that neither *antique* or *novel*, *foreign* or *native*, *mysterious* or *plain*, are certain Characters either of Truth or Falshood.

I might mention various other *Humours of Men* that excite in them various *Prejudices*, and lead them into rash and mistaken Judgments; but these are sufficient for a Specimen.

VII. There are several other *Weaknesses* which belong to human Nature, whereby we are led into *Mistakes*, and indeed are render'd almost uncapable of passing a solid Judgment in Matters of great Depth and Difficulty. Some have a *native Obscurity of Perception*, (or shall I call it a want of *natural Sagacity?* whereby they are hinder'd from attaining clear and distinct Ideas. Their Thoughts always seem to have something confus'd and cloudy in them, and therefore they judge in the dark. Some have a *Defect in Memory*, and then they are not capable of comparing their present Ideas with a great Variety of other, in order to secure themselves from Inconsistency in Judgment. Others may have a Memory large enough, yet they are subject to the same Errors from a *Narrowness of Soul*, and such a *Fixation* and *Confinement of Thought to a few Objects*, that they scarce ever take a Survey of Things wide enough to judge wisely and well, and to secure themselves from all Inconsistencies.

Tho' these are *natural Defects* and *Weaknesses* yet they may in some measure be reliev'd by Labour, Diligence and a due Attention to proper Rules.

But

But among all the *Causes of false Judgment which are within ourselves*, I ought by no means to leave out that *universal and original Spring of Error*, which we are inform'd of by the Word of God, and that is *the Sin and Defection of our first Parents*, whereby all our best natural Powers both of Mind and Body are impair'd, and render'd very much inferior to what they were in a State of Innocence. Our Understanding is darken'd, our Memory contracted, our corrupt Humours and Passions are grown predominant, our Reason infeebled, and various Disorders attend our Constitution and animal Nature, whereby the Mind is strangely impos'd upon in its judgment of Things. Nor is there any perfect Relief to be expected on Earth. There is no hope of ever recovering from these Maladies, but by a *sincere Return to God* in the Ways of his own Appointment, whereby we shall be kept safe from all dangerous and pernicious Errors in the Matters of Religion; and tho' *Imperfections* and *Mistakes* will hang about us in the present Life as the Effects of our *original Apostacy* from God, yet we hope for a full Deliverance from them when we arrive at Heaven.

Sect. IV.

Prejudices arising from other Persons.

WERE it not for the *Springs of Prejudice, that are lurking in ourselves*, we should not be subject to so many Mistakes from the *Influence of others:* But since our Nature is so susceptive of Errors on all Sides, it is fit we should have Hints and Notices given us, how far *other Persons* may have Power over us, and become the

Causes of our false Judgments. This might all be cast into one Heap, for they are all near akin, and mingle with each other: But for Distinction sake let them be call'd the *Prejudices of Education*, of *Custom*, of *Authority*, and such as arise from the *manner of Proposal.*

I. Those with whom *our Education* is entrusted may lay the *first Foundation of many Mistakes* in our younger Years. How many Fooleries and Errors are instill'd into us by our Nurses, our Fellow-Children, by Servants or unskilful Teachers, which are not only maintain'd through the following Parts of Life, but sometimes have a very unhappy Influence upon us! We are taught that *There are Goblings and Bugbears in the Dark*; our young Minds are crouded with the *terrible Ideas of Ghosts appearing upon every Occasion*, or with the pleasanter Tales of *Fairies dancing at Midnight.* We learn to *prophesy betimes*, to *foretel Futurities by good or evil Omens*, and to *presage approaching Death* in a Family by *Ravens* and *little Worms*, which we therefore call a *Death-watch.* We are taught to know beforehand, for a Twelvemonth together, *which Days of the Week will be fair or foul*, which will be *lucky* or *unlucky*; nor is there any Thing so silly, but may be impos'd upon our Understandings in that early part of Life; and these ridiculous Stories abide with us too long, and too far influence the weaker Part of Mankind.

We chuse our *particular Sect and Party in the civil, the religious and the learned Life*, by the Influence of *Education.* In the Colleges of Learning, some are for the *Nominals*, and some for the *Realists* in the Science of Metaphysicks, because their Tutors were devoted to these Parties. The

old

old Philoſophy and the *new* have gained thouſands of Partizans the ſame Way: And every *Religion* has its *Infant Votaries*, who are born, live and die in the ſame Faith without Examination of any Article. The *Turks* are taught early to believe in *Mahomet*; the *Jews* in *Moſes*; the *Heathens* worſhip a *Multitude of Gods* under the Force of their *Education*. And it would be well if there were not Millions of *Chriſtians*, who have little more to ſay for their Religion, than that they were born and bred up in it. The greateſt part of the *Chriſtian World* can hardly give any Reaſon why they believe the *Bible to be the Word of God*, but becauſe they have always believ'd it, and they were taught ſo from their Infancy. As *Jews* and *Turks*, and *American Heathens* believe the moſt monſtrous and incredible Stories, becauſe they have been train'd up amongſt them, as Articles of Faith; ſo the *Papiſts* believe their *Tranſubſtantiation*, and make no Difficulty of aſſenting to Impoſſibilities, ſince it is the current Doctrine of their Catechiſms. By the ſame Means the ſeveral Sects and Parties in *Chriſtianity* believe all the *ſtrained Interpretations of Scripture* by which they have been taught to ſupport their own Tenets: They find nothing difficult in all the abſurd *Gloſſes* and *far-fetch'd* Senſes that are ſometimes put upon the Words of the ſacred Writers, becauſe their Ears have been always accuſtom'd to theſe Gloſſes; and therefore they ſit ſo ſmooth and eaſy upon their Underſtandings, that they know not how to admit the moſt natural and eaſy Interpretation in Oppoſition to them.

In the ſame manner we are nurſt up in many ſilly and groſs Miſtakes about *domeſtick* Affairs as well as in Matters of *political* Concernment. It is upon the ſame Ground that Children are train'd

up

up to be *Whigs* and *Tories* betimes; and every one learns the distinguishing Terms of his own Party, as the *Papists learn to say their Prayers in Latin*, without any Meaning, Reason, or Devotion.

This sort of *Prejudice* must be cur'd by calling all the Principles of our younger Years to the Bar of more mature Reason, that we may judge of the Things of *Nature* and *political Affairs* by juster Rules of Philosophy and Observation: And even the *Matters of Religion* must be first enquir'd into by *Reason* and *Conscience*, and when these have led us to believe *Scripture to be the Word of God*, then that becomes our sovereign Guide, and Reason and Conscience must submit to receive its Dictates.

II. The next *Prejudice* which I shall mention is, that which arises from the *Custom or Fashion of those amongst whom we live.* Suppose we have freed our selves from the younger *Prejudices of our Education*, yet we are in Danger of having our Mind turned aside from Truth by the Influence of *general Custom.*

Our Opinion of *Meats* and *Drinks*, of *Garments* and *Forms* of *Salutation* are influenc'd much more by *Custom* than by the Eye, the Ear, or the Taste. Custom prevails even over *Sense* itself, and therefore no Wonder if it prevail over *Reason* too. What is it but *Custom* that renders many of the *Mixtures of Food* and *Sauces* elegant in *Britain*, which would be aukward and nauseous to the Inhabitants of *China*, and indeed were nauseous to us when we first tasted them; What but *Custom* could make those *Salutations* polite in *Muscovy*, which are ridiculous in *France* or *England?* We call our selves indeed the *politer Nations*, but it is we who judge thus of ourselves; and that fan-

cied *Politeneſs* is oftentimes more owing to *Cuſtom* than *Reaſon*. Why are the Forms of our *preſent Garments* counted beautiful, and thoſe Faſhions of our Anceſtors the Matter of Scoff and Contempt, which in their Day were all decent and genteel? It is *Cuſtom* that forms our Opinion of *Dreſs*, and reconciles us by Degrees to thoſe Habits which at firſt ſeem'd very odd and monſtrous. It muſt be granted there are ſome Garments and Habits which have a *natural* Congruity or Incongruity, Modeſty or Immodeſty. Decency or Indecency, Gaudery or Gravity; tho' for the moſt part there is but little of Reaſon in theſe Affairs: But what little there is of *Reaſon* or *natural Decency*, *Cuſtom* triumphs over it all. It is almoſt impoſſible to perſuade a gay Lady that any thing can be *decent* which is out of *Faſhion:* And it were well if *Faſhion* ſtretch'd its Powers no farther than the Buſineſs of Drapery and the Fair Sex.

The Methods of our Education are govern'd by *Cuſtom*. It is *Cuſtom* and not Reaſon that ſends every Boy to learn the *Roman* Poets, and begin a little Acquaintance with *Greek*, before he is bound an Apprentice to a Soapboiler or Leatherſeller. It is Cuſtom alone that teaches us *Latin* by the Rules of a *Latin Grammar*; a tedious and abſurd Method! And what is it but Cuſtom that has for paſt Centuries confin'd the brighteſt Genius's even of high Rank in the Female World to the only Buſineſs of the Needle, and ſecluded them moſt unmercifully from the Pleaſures of Knowledge, and the Divine Improvements of Reaſon? But we begin to break all theſe Chains, and Reaſon begins to dictate the Education of Youth, May the growing Age be learned and wiſe!

It is by the *Prejudice* arising from our own *Custom*, that we judge of all other *civil* and *religious Forms* and *Practices*. The Rites and Ceremonies of *War* and *Peace* in other Nations, the Forms of *Weddings* and *Funerals*, the several Ranks of *Magistracy*, the *Trades* and *Employments* of both Sexes, the *publick* and the *domestick Affairs of Life*, and almost every thing of *foreign Customs* is judg'd irregular. It is all imagin'd to be *unreasonable* or *unnatural*, by those who have no other Rule to judge of *Nature* and *Reason*, but the Customs of their own Country, or the little Town where they dwell. *Custom* is call'd a *second Nature*, but we often mistake it for *Nature itself*.

Besides all this, there is a Fashion in *Opinions*, there is a Fashion in *Writing* and *Printing*, in *Style* and *Language*. In our Day it is the Vogue of the Nation, that *Parliaments may settle the Succession of the Crown*, and that a *People can make a King*; in the last Age this was a Doctrine akin to Treason. *Citations from the Latin Poets* were an Embellishment of Style in the last Century, and whole Pages in that Day were cover'd with them; it is now forbidden by Custom, and expos'd by the Name of *Pedantry*; whereas in Truth both these are Extremes. Sometimes our printed Books shall abound in *Capitals*, and sometimes reject them all. Now we deal much in *Essays*, and most unreasonably despise *systematic* Learning, whereas our Fathers had a just Value for Regularity and *Systems*; then *Folio's* and *Quarto's* were the fashionable Sizes, as Volumes in *Octavo* are now. We are ever ready to run into Extremes, and yet *Custom* still persuades us that *Reason* and *Nature* are on our Side.

This Buſineſs of the *Faſhion* has a moſt powerful Influence on our Judgments; for it employs thoſe two ſtrong Engines of *Fear* and *Shame* to operate upon our Underſtandings with unhappy Succeſs. We are aſham'd to believe or profeſs an unfaſhionable Opinion in Philoſophy, and a cowardly Soul dares not ſo much as indulge a Thought contrary to the *eſtabliſh'd* or *faſhionable Faith*, nor act in Oppoſition to *Cuſtom*, tho' it be according to the Dictates of *Reaſon*.

I confeſs, there is a Reſpect due to Mankind which ſhould incline even the wiſeſt of Men to follow the *innocent Cuſtoms* of their Country in outward Practices of the Civil Life, and in ſome Meaſure to ſubmit to Faſhion in *all indifferent Affairs*, where *Reaſon* and *Scripture* make no Remonſtrances againſt it. But the Judgments of the Mind ought to be for ever free, and not biaſs'd by the *Cuſtoms* and *Faſhions* of any Age or Nation whatſoever.

To deliver our Underſtandings from this Danger and Slavery, we ſhould conſider theſe three Things.

1. That the greateſt Part of the *Civil Cuſtoms* of any particular Nation or Age ſpring from *Humour* rather than *Reaſon*. Sometimes the Humour of the Prince prevails, and ſometimes the Humour of the People. It is either the *Great* or the *Many* who dictate the Faſhion, and theſe have not always the higheſt Reaſon on their Side.

2. Conſider alſo, that the *Cuſtoms* of the ſame Nation in different Ages, the *Cuſtoms* of different Nations in the ſame Age, and the *Cuſtoms* of different Towns and Villages in the ſame Nation, are very various and contrary to each other. The *faſhionable* Learning, Language, Sentiments and Rules of Politeneſs differ greatly in *different Countries*

tries and *Ages* of Mankind; but *Truth* and *Reason* are of a more uniform and steady Nature, and don't change with the Fashion. Upon this Account, to cure the *Prepossessions* which arise from *Custom*, it is of excellent Use to travel, and see the Customs of various Countries, and to read the Travels of other Men, and the History of past Ages, that every thing may not seem strange and uncouth which is not practis'd within the Limits of our own Parish, or in the narrow Space of our own Life-time.

3. Consider yet again, how often we our selves have chang'd our own Opinions concerning the Decency, Propriety, or Congruity of several *Modes* or *Practices* in the World, especially if we have lived to the Age of thirty or forty. *Custom* or *Fashion*, even in all its Changes, has been ready to have some Degree of Ascendency over our Understanding, and what at one time seem'd *decent*, appears *obsolete* and *disagreeable* afterward, when the Fashion changes. Let us learn therefore to abstract as much as possible from *Custom* and *Fashion*, when we would pass a Judgment concerning the real Value and intrinsic Nature of Things.

III. *The Authority of Men is the Spring of another Rank of Prejudices.*

Among these the *Authority* of our *Forefathers* and *ancient Authors* is most remarkable. We pay Deference to the Opinions of others, merely because they liv'd a thousand Years before us; and even the Trifles and Impertinencies that have a Mark of *Antiquity* upon them are reverenc'd for this Reason, because they came from the *Ancients*. It is granted, that the *Ancients* had many wise and great Men among them, and some of

their Writings, which Time hath deliver'd down to us, as truly valuable: But thoſe Writers lived rather in the Infant-State of the World; and the *Philoſophers*, as well as the *polite Authors* of our Age, are properly the *Elders*, who have ſeen the Miſtakes of the *younger Ages* of Mankind, and corrected them by Obſervation and Experience.

Some borrow all their Religion from the *Fathers* of the *Chriſtian Church*, or from their *Synods* or *Councils*; but he that will read Monſieur *Daillé* on the *Uſe of the Fathers* will find many Reaſons why they are by no means fit to dictate our Faith, ſince we have the Goſpel of *Chriſt*, and the Writings of the Apoſtles and Prophets in our own Hands.

Some Perſons believe every thing that their *Kindred*, their *Parents*, and their *Tutors* believe. The Veneration and the Love which they have for their *Anceſtors* inclines them to ſwallow down all their Opinions at once, without examining what Truth or Falſhood there is in them. Men take up their Principles by Inheritance, and defend them as they would their Eſtates, becauſe they are born Heirs to them. I freely grant, that *Parents* are appointed by God and Nature to teach us all the Sentiments and Practices of our younger Years; and happy are thoſe whoſe Parents lead them into the Paths of Wiſdom and Truth! I grant farther, that when Perſons come to Years of Diſcretion, and judge for themſelves, they ought to examine the *Opinions of their Parents* with the greateſt Modeſty, and with a humble Deference to their ſuperior Character; they ought in Matters perfectly dubious to give the Preference to their Parents Advice, and always to pay them the firſt Reſpect, nor ever depart from their Opinions and Practice, till Reaſon and Conſcience

make it necessary. But after all, it is possible that *Parents* may be mistaken, and therefore *Reason* and *Scripture* ought to be our final Rules of Determination in Matters that relate to this World, and that which is to come.

Sometimes a *favourite Author*, or a *Writer of great Name*, drags a thousand Followers after him into his own Mistakes, merely by the Authority of his Name and Character. The Sentiments of *Aristotle* were imbib'd and maintain'd by all the Schools in *Europe* for several Centuries; and a Citation from his Writings was thought a sufficient Proof of any Proposition. The great *Descartes* had also too many implicit Believers in the last Age, tho' he himself, in his Philosophy, disclaims all such Influence over the Minds of his Readers. *Calvin* and *Luther*, in the Days of Reformation from *Popery*, were learned and pious Men, and there have been a Succession of their Disciples even to this Day, who pay too much Reverence to the Words of their Masters. There are others who renounce their Authority, but give themselves up in too servile a manner to the Opinion and Authority of other Masters, and follow as bad or worse Guides in Religion.

If only *learned*, and *wise*, and *good* Men had Influence on the Sentiments of others, it would be at least a more excusable sort of Prejudice, and there would be some Colour and Shadow of Reason for it: But that *Riches*, *Honours*, and *outward Splendour* should set up Persons for Dictators to all the rest of Mankind; this is a most shameful Invasion of the Right of our Understandings on the one hand, and as shameful a Slavery of the Soul on the other. The *poor Man* or the *Labourer* too often believes such a Principle in *Politicks*, or in *Morality*, and judges concerning the *Rights of the*

King and the People, just as his *wealthy Neighbour* does. Half the Parish follows the Opinion of the *Esquire*, and the *Tenants* of a Manor fall into the Sentiments of their *Lord*, especially if he lives amongst them. How unreasonable and yet how common is this?

As for Principles of *Religion*, we frequently find how they are taken up and forsaken, chang'd and resum'd by the Influence of *Princes*. In all Nations the *Priests* have much Power also in dictating the Religion of the *People*, but the *Princes* dictate to them: And where there is a great Pomp and Grandeur attending the Priesthood in any Religion whatsoever, with so much the more Reverence and stronger Faith do the People believe whatever they teach them: Yet it is too often evident that *Riches*, and *Dominions*, and *high Titles* in *Church* or *State* have no manner of Pretence to Truth and Certainty, Wisdom and Goodness, above the rest of Mortals, because these Superiorities in this World are not always confer'd according to Merit.

I confess, where a Man of *Wisdom* and *Years*, of *Observation* and *Experience*, gives us his Opinion and Advice in Matters of the *civil* or the *moral Life*, Reason tells us we should pay a great Attention to him, it is probable he may be in the Right. Where a Man of *long Exercise* in *Piety* speaks of *practical Religion*, there is a due Deference to be paid to his Sentiments: And the same we may say concerning an *ingenious Man long versed in any Art or Science*, he may justly expect due Regard when he speaks of his own Affairs and proper Business. But in *other Things* each of these may be ignorant enough, notwithstanding all their Piety, and Years, and particular Skill: Nor even in their *own proper Province* are they to be believ'd

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in every thing without Reserve, and without Examination.

To free our selves from these *Prejudices*, it is sufficient to remember that there is no Rank nor Character among Mankind, which has any just Pretence to sway the Judgments of other Men by their Authority: For there have been Persons of the same Rank and Character who have maintain'd different and contrary Sentiments; but all these can never be true, and therefore the mere Name or Reputation that any of them possesses, is not a sufficient Evidence of Truth.

Shall we believe the *Ancients in Philosophy?* But some of the Ancients were *Stoicks*, some *Peripateticks*, some *Platonicks*, and some *Epicureans*, some *Cynics*, and some *Sceptics*. Shall we judge of Matters of the *Christian Faith* by the *Fathers* or *Primitive Writers* for three or four hundred Years after *Christ?* But they often contradicted one another, and themselves too; and what is worse, they sometimes contradicted the Scripture itself. Now among all these different and contrary Sentiments in *Philosophy* and *Religion*, which of the Ancients must we believe, for we cannot believe them all?

Again, To believe in all Things as our Predecessors did, is the ready way to keep Mankind in an everlasting State of Infancy, and to lay an eternal Bar against all the Improvements of our Reason and our Happiness. Had the present Age of Philosophers satisfied themselves with the *substantial Forms*, and *occult Qualities* of *Aristotle*, with the *solid Spheres*, *Excentricks* and *Epycicles* of *Ptolomy*, and the ancient Astronomers; then, the great Lord *Bacon*, *Copernicus*, and *Descartes*, with the greater Sir *Isaac Newton*, Mr. *Locke*, and Mr. *Boyle*, had risen in our World in vain. We must

have blunder'd on ſtill in ſucceſſive Generations amongſt Abſurdities and thick Darkneſs, and a hundred uſeful Inventions for the Happineſs of human Life had never been known.

Thus it is in Matters of *Philoſophy* and *Science*. *But*, you will ſay, *ſhall not our own Anceſtors determine our Judgment in Matters of civil or religious Concernment?* If they muſt, then the Child of a *Heathen* muſt believe that *Heatheniſm* is Truth; the Son of a *Papiſt* muſt aſſent to all the Abſurdities of *Popery*; the Poſterity of the *Jews* and *Socinians* muſt for ever be *Socinians* and *Jews*; and a Man, whoſe Father was of *Republican* Principles, muſt make a Succeſſion of *Republicans* in his Family to the end of the World. If we ought always to believe whatſoever our *Parents*, or our *Prieſts*, or our *Princes* believe, the Inhabitants of *China* ought to worſhip their own Idols, and the Savages of *Africa* ought to believe all the Nonſenſe, and practiſe the Idolatry of their *Negro Fathers* and *Kings*. The *Britiſh* Nation, when it was *Heathen*, could never have become *Chriſtian*; and when it was a Slave to *Rome*, it could never have been *reform'd*.

Beſides, let us conſider that the great God, our common Maker, has never given one Man's Underſtanding a legal and rightful Sovereignty to determine Truth for others, at leaſt after they are paſt the State of Childhood or Minority. No ſingle Perſon, how learned and wiſe, and great ſoever, or whatſoever *natural*, or *civil*, or *eccleſiaſtical* Relation he may have to us, can claim this Dominion over our Faith. St. *Paul* the Apoſtle, in his private Capacity would not do it; nor hath an inſpir'd Man any ſuch Authority, until he make his divine Commiſſion appear. Our Saviour himſelf tells the *Jews*, that *if he had not done ſuch* wondrous

drous *Works among them, they had not sinned* in disbelieving his Doctrines, and refusing him for the *Messiah*. No Bishop or Presbyter, no Synod or Council, no Church or Assembly of Men, (since the Days of Inspiration) hath Power derived to them from God to make Creeds or Articles of Faith for us, and impose them upon our Understandings. We must all act according to the best of our own Light, and the Judgment of our own Consciences, using the best Advantages which Providence hath given us, with an honest and impartial Diligence to enquire and search out the Truth: For *every one of us must give an Account of himself to God*. To believe as the *Church, or the Court believes*, is but a sorry and a dangerous Faith: This Principle would make more *Heathens* than *Christians*, and more *Papists* than *Protestants*; and perhaps lead more Souls to *Hell* than to *Heaven*; for our Saviour himself has plainly told us, that if the *Blind* will be *led by the Blind, they must both fall into the Ditch*.

Tho' there be so much Danger of Error arising from the three *Prejudices* last mention'd, yet before I dismiss this Head, I think it proper to take Notice, that as *Education*, *Custom* and *Authority* are no sure *Evidences of Truth*, so neither are they certain *Marks of Falshood*; for Reason and Scripture may join to dictate the same Things which our Parents, our Nurses, our Tutors, our Friends, and our Country believe and profess. Yet there appears sometimes in our Age a *Pride* and *Petulancy* in Youth, zealous to cast off the Sentiments of their *Fathers* and *Teachers* on Purpose to shew that they carry none of the *Prejudices* of *Education* and *Authority* about them. They indulge all manner of licentious Opinions and Practices, from a vain Pretence of asserting their Liberty. But

alas!

alas! This is but changing one *Prejudice* for another; and ſometimes it happens by this means, that they make a Sacrifice both of Truth and Virtue to the vile *Prejudices* of their *Pride* and *Senſuality*.

IV. There is another Tribe of *Prejudices* which are near akin to thoſe of *Authority*, and that is when we receive a Doctrine becauſe of the *Manner in which it is propos'd to us by others.* I have already mentioned the powerful Influence that *Oratory* and *fine Words* have to inſinuate a falſe Opinion, and ſometimes Truth is refus'd, and ſuffers Contempt in the Lips of a wiſe Man, for want of the Charms of Language: But there are ſeveral other *Manners of Propoſal* whereby miſtaken Sentiments are powerfully conveyed into the Mind.

Some Perſons are eaſily perſuaded to believe what another dictates with a *poſitive Air* and a *great Degree of Aſſurance:* They feel the overbearing Force of a confident Dictator, eſpecially if he be of ſuperior Rank or Character to themſelves.

Some are quickly convinced of the Truth of any Doctrine, when he that propoſes it puts on all the *Airs of Piety*, and makes *ſolemn Appeals to Heaven*, and *Proteſtations of the Truth* of it: The pious Mind of a weaker Chriſtian is ready to receive any thing that is pronounced with ſuch an awful Solemnity.

It is a *Prejudice* near akin to this, when a humble Soul is frighted into any particular Sentiments of Religion, becauſe a Man of great Name or Character pronounces *Hereſy* upon the contrary Sentiments, caſts the Disbeliever out of the Church, and forbids him the Gates of Heaven.

Others

Others are allured into particular Opinions by *gentler Practices* on the Understanding: Not only the softer Tempers of Mankind, but even hardy and rugged Souls are sometimes led away Captives to Error by the *soft Airs of Address*, and the *sweet and engaging Methods of Persuasion and Kindness*.

I grant, where natural or reveal'd Religion plainly dictate to us the infinite and everlasting Importance of any sacred Doctrine, it cannot be improper to use any of these Methods to persuade Men to receive and obey the Truth, after we have given sufficient Reason and Argument to convince their Understandings. Yet all these Methods considered in themselves, have been often us'd to convey Falshood into the Soul as well as Truth; and if we build our Faith merely upon these Foundations, without Regard to the Evidence of Truth and the Strength of Argument, our Belief is but the *Effect* of *Prejudice:* For neither the *positive*, the *awful* or *solemn*, the *terrible* or the *gentle* Methods of Address carry any certain Evidence with them that Truth lies on that Side.

There is another *Manner of proposing* our own Opinion, or rather *opposing* the Opinions of others, which demands a mention here, and that is when Persons make a *Jest* serve instead of an *Argument*; when they refute what they call *Error* by a *Turn of Wit*, and answer every Objection against their own Sentiments, by casting a *Sneer* upon the Objector. These *Scoffers* practise with Success upon weak and cowardly Spirits: Such as have not been well establish'd in Religion or Morality, have been laugh'd out of the best Principles by a *confident Buffoon*; they have yielded up their Opinions to a *witty Banter*, and sold their Faith and Religion for a *Jest*.

There

There is no Way to cure these Evils in such a degenerate World as we live in, but by learning to distinguish well between the *Substance of any Doctrine*, and the *manner of Address* either in proposing, attacking, or defending it; and then by setting a just and severe Guard of Reason and Conscience over all the Exercises of our Judgment, resolving to yield to nothing but the convincing Evidence of Truth, religiously obeying the Light of *Reason* in Matters of *pure Reason*, and the Dictates of *Revelation* in Things that relate to our *Faith*.

Thus we have taken a brief Survey of some of the *infinite Varieties* of *Prejudice* that attend Mankind on every side in the present State, and the *Dangers* of *Error* or of *rash Judgment*, we are perpetually expos'd to in this Life: This Chapter shall conclude with one *Remark*, and one Piece of *Advice*.

The *Remark* is this. The same Opinion, whether *false* or *true*, may be dictated by many *Prejudices* at the same time; for, as I hinted before, *Prejudice* may happen to dictate Truth sometimes as well as Error. But where two or more *Prejudices* oppose one another, as it often happens, the stronger prevails and gains the Assent: Yet how seldom does *Reason* interpose with sufficient Power to get the Ascendant of them all as it ought to do!

The *Advice* follows, (*viz.*) Since we find such a swarm of *Prejudices* attending us both within and without; since we feel the Weakness of our Reason, the Frailty of our Natures, and our Insufficiency to guard our selves from Error upon this Account, it is not at all unbecoming the Character of a *Logician* or a *Philosopher* (together with the Advices already given) to direct every Person in his *Search after Truth* to make his daily Addresses

dresses to Heaven, and implore the *God of Truth* to lead him into all Truth, and to *ask Wisdom of him who giveth liberally* to them that ask it, *and upbraideth us not* with our own Follies.

Such a devout Practice will be an excellent Preparative for the best Improvement of all the *Directions* and *Rules* propos'd in the two following Chapters.

CHAP. IV.

General Directions to assist us in judging aright.

THE chief Design of the Art of *Logick* is to assist us in forming a true Judgment of Things; a few proper *Observations* for this End have been dropt occasionally in some of the foregoing Chapters: Yet it is necessary to mention them again in this Place, that we may have a more compleat and simultaneous View of the *general Directions*, which are necessary in order to judge aright. A Multitude of Advices may be framed for this Purpose; the chief of them may, for Order sake, be reduced to the following Heads.

I. *Direct.* When we consider our selves as *Philosophers*, or *Searchers after Truth*, we should *examine all our old Opinions afresh, and enquire what was the Ground of them, and whether our Assent were built on just Evidence*; and then *we should cast off all those Judgments which were formed heretofore without due Examination.* A Man in pursuit of Knowledge should throw off all those *Prejudices*

dices which he had imbib'd in Times paſt, and guard againſt all the *Springs of Error* mention'd in the *preceding Chapter*, with utmoſt Watchfulneſs for Time to come.

Obſerve here, that this Rule of *caſting away all our former prejudicate Opinions and Sentiments*, is not propos'd to any of us to be practiſed at once, conſider'd as *Men of Buſineſs* or *Religion*, as *Friends* or *Neighbours*, as *Fathers* or *Sons*, as *Magiſtrates*, *Subjects* or *Chriſtians*; but merely as *Philoſophers* and *Searchers after Truth*: And tho' it may be well preſum'd that many of our Judgments, both true and falſe, together with the Practices built thereon in the natural, the civil and the religious Life were form'd without ſufficient Evidence; yet an *univerſal Rejection of all theſe* might deſtroy at once our preſent Senſe and Practice of Duty with Regard to *God*, our *Selves*, and our *Fellow-Creatures*. Mankind would be hereby thrown into ſuch a State of *Doubting* and *Indifference*, that it would be too long e're they recover'd any Principles of Virtue or Religion by a Train of Reaſonings.

Beſides, the common Affairs of human Life often demand a much ſpeedier Determination, and we muſt many times act upon preſent Probabilities: The Bulk of Mankind have not Time and Leiſure, and Advantages ſufficient to begin all their Knowledge anew, and to build up every ſingle Opinion and Practice afreſh upon the juſteſt Grounds of Evidence.

Yet let it be *obſerv'd* alſo, that ſo far as any Perſon is capable of forming and correcting his Notions and his Rules of Conduct in the natural, civil and religious Life by the ſtrict Rules of *Logick*; and ſo far as he hath Time and Capacity to review his old Opinions, to re-examine all thoſe

which are any Way doubtful, and to determine nothing without just Evidence, he is likely to become so much the wiser, and the happier Man, and (if Divine Grace assist him) so much the better Christian. And tho' this cannot be done all at once, yet it may be done by prudent Steps and Degrees, till our whole Set of Opinions and Principles be in time corrected and reform'd, or at least establish'd upon juster Foundations.

II. *Direct. Endeavour that all your Ideas of those Objects concerning which you pass any Judgment, be clear and distinct, compleat, comprehensive, extensive and orderly, as far as you have Occasion to judge concerning them.* This is the Substance of the *last* Chapter of the *first* Part of *Logick*. The *Rules which direct our Conceptions*, must be review'd, if we would form our Judgments aright. But if we will make haste to judge at all Adventures, while our Ideas are *dark* and *confus'd* and *very imperfect*, we shall be in Danger of running into many Mistakes. This is like a Person who would pretend to give the Sum total of a large Account in *Arithmetick*, without surveying all the Particulars; or as a *Painter* who professes to draw a fair and distinct Landskip in the Twilight, when he can hardly distinguish a House from a Tree.

Observe here, that this *Direction* does not require us to gain clear, distinct, compleat Ideas of Things in all their Parts, Powers, and Qualities in an *absolute Sense*, for this belongs to God alone, and is impossible for us to attain: But it is exprest in a *relative* or *limited Sense*; that is, our Ideas should be clear, distinct and comprehensive, *&c.* at least so far *as we have Occasion at that time to judge concerning them.* We may form many true and certain Judgments concerning *God*, *Angels*, *Animals*,

nimals, *Men*, *Heaven*, *Hell*, &c. by thoſe partial and very imperfect Conceptions of them to which we have attain'd, if we judge no farther concerning them than our Conceptions reach.

We may have a clear and diſtinct Idea of the *Exiſtence* of many Things in Nature, and affirm that *they do exiſt*, tho our Ideas of their *intimate Eſſences and Cauſes*, their *Relations and Manners of Action* are very confus'd and obſcure. We may judge well concerning *ſeveral Properties* of any Being, tho' *other Properties* are unknown, for perhaps we know not all the Properties of any Being whatſoever.

Sometimes we have clear Ideas of the *abſolute Properties* of an Object; and we may judge of them with Certainty, while the *relative Properties* are very obſcure and unknown to us. So we may have a clear and juſt Idea of the *Area of a* Parallelogram without knowing what Relation it bears to the *Area of a Triangle* or a *Polygon*. I may know the length of the *Diameter of a Circle*, without knowing what Proportion it has to the *Circumference*.

There are other Things whoſe *external Relative Properties* with reſpect to each other, or whoſe *Relations to us* we know better than their own *inward* and *abſolute Properties*, or their eſſential diſtinguiſhing Attributes. We perceive clearly, that *Fire will warm or burn us*, and *will evaporate Water*; and that *Water will allay our Thirſt*, or *quench the Fire*, tho' we know not the inward diſtinguiſhing Particles or prime eſſential Properties of *Fire* or *Water*. We may know the *King*, and *Lord Chancellor*, and affirm many Things of them in their *legal Characters*, tho' we can have but a confus'd Idea of their *Perſons* or *natural Features*, if we have never ſeen their Faces. So the Scripture

ture has reveal'd God himself to us, as our *Creator*, *Preserver*, *Redeemer*, and *Sanctifier*, and as the *Object of our Worship* in clearer Ideas than it has reveal'd many other abstruse Questions which may be rais'd about his own *Divine Essence* or *Substance*, his *Immensity* or *Omnipresence*.

This therefore is the *general Observation* in order to guide our Judgments, that *we should not allow our selves to form a Judgment concerning Things farther than our clear and distinct Ideas reach*, and then we are not in danger of Error.

But there is one *considerable Objection* against this Rule which is necessary to be answer'd; and there is one *just and reasonable Exception*, which is as needful to be mention'd.

The *Objection* is this: May we not judge safely concerning some *total or compleat Ideas*, when we have a clear Perception only of some *Parts or Properties of them?* May we not affirm, that *All that is in God is eternal*, or that *all his unknown Attributes are infinite*, tho' we have so very imperfect an Idea of *God*, *Eternity* and *Infinity? Again*, May we not safely judge of *particular* Objects whose Idea is obscure by a clear Idea of the *General?* May I not affirm, that *every unknown Species of Animals has inward Springs of Motion*, because I have a clear Idea that these *inward Springs* belong to an *Animal in general?*

Answer. All those suppos'd *unknown Parts*, *Properties* or *Species* are clearly and distinctly perceived to be connected with, or contain'd in the *known Parts*, *Properties* or *general Ideas*, which we suppose to be clear and distinct as far as we judge of them: And as we have no *particular* Idea of those *unknown divine Attributes*, or *unknown Species of Animals*; so there is nothing *particular* affirm'd concerning them beyond what belongs to

the *general Idea* of *Divine Attributes* or *Animals*, with which I clearly and distinctly perceive them to be connected.

It may be illustrated in this manner. Suppose a *long Chain* lies before me, whose *nearest Links* I see are Iron Rings, and I see them fasten'd to a Post near me, but the most *distant Links* lie beyond the reach of my Sight, so that I know not whether they are Oval or Round, Brass or Iron: Now I may boldly affirm the *whole Length of this Chain is fasten'd to the Post*, for I have a clear Idea that the nearest Links are thus fasten'd, and a clear Idea that the distant Links are connected with the nearest, if I can draw the whole Chain by one Link.

Or thus; If two known Ideas, A and B are evidently join'd, or agree, and if C unknown be included in A, and also D unknown be included in B, then I may affirm that C and D are join'd and agree; for I have a clear Perception of the Union of the two known Ideas A and B; and also a clear Perception of the Connexion of the unknown Ideas with the known. So that *clear* and *distinct Ideas* must still abide as a general necessary Qualification in order to form right Judgments: and indeed, it is upon this Foot that all *Ratiocination* is built, and the *Conclusions* are thus formed, which deduce Things unknown from Things known.

Yet it seems to me that there is one just *Limitation* or *Exception* to this *general Rule of Judgment*, as built on clear and distinct Ideas, and it is this;

Exception. *In Matters of mere Testimony, whether human or divine, there is not always a Necessity of clear and distinct Ideas of the Things which are believ'd.* Tho' the Evidence of Propositions, which are *entirely form'd by ourselves*, depends on the Clearness and Distinctness

Distinctness of those Ideas of which they are compos'd, and on our own clear Perception of their Agreement or Disagreement, yet we may justly assent to Propositions *form'd by others*, when we have neither a very clear Conception in our selves of the two Ideas contained in the Words, nor how they agree or disagree; provided always that we have a clear and sufficient Evidence of the Credibility of the Persons who inform us.

Thus when we read in Scripture the great Doctrines of the *Deity of Christ*, of the *Union of the divine and human Natures in him*, of the *divine Agency of the blessed Spirit*, that *the Son is the Brightness of his Father's Glory*, that *all Things were created by him, and for him*, that *the Son shall give up his Kingdom to the Father*, and that *God shall be all in all*, we may safely believe them: For tho' our Ideas of these Objects themselves are not sufficiently clear, distinct, and perfect, for our own Minds to form these Judgments or Propositions concerning them, yet we have a clear and distinct Perception of God's revealing them, or that they are contain'd in Scripture; and this is sufficient Evidence to determine our Assent.

The same Thing holds true in some measure, where *credible human Testimony* assures us of some Propositions, while we have no sufficient Ideas of the Subject and Predicate of them to determine our Assent. So when an honest and learned Mathematician assures a Plowman that the *three Angles of a Triangle are equal to two right Angles*, or that the *Square of the Hypotenuse of a right-angled Triangle is equal to the Sum of the Squares of the two Sides*; the Plowman, who has but confus'd Ideas of these Things, may firmly and safely believe these Propositions upon the same Ground,

becauſe he has Evidence of the Skill and Faithfulneſs of his Informer *.

III. *Direction.* When you have obtain'd as clear and comprehenſive Ideas as is needful, both of the Subject and Predicate of a Propoſition, then *compare thoſe Ideas of the Subject and Predicate*

* Perhaps ſome may object againſt this Repreſentation of Things, and ſay, that "We cannot properly be ſaid to *believe a Propoſition* any farther "than we ourſelves have Ideas under the Terms: Therefore if we have *no* "*Ideas* under the Terms, we believe nothing but the Connection of Words "or Sounds; and if we have but *obſcure and inadequate Ideas* under the "Terms, then we partly believe a Connection of Things, and partly a "Connection of Sounds: but that we cannot properly be ſaid to *believe the* "*Propoſition*, for our Faith can never go beyond our Ideas.

Now to ſet this Matter in a clear Light, I ſuppoſe that every Propoſition which is propoſed to my Aſſent, is a Sentence made up of Terms which have ſome Ideas under them, known or unknown to me. I confeſs, if I believe there are no Ideas at all under the Terms, and there is nothing meant by them, then indeed (with regard to me) it is the mere *joining of Sounds:* But if (for inſtance) a Plowman has credible Information from an honeſt and skilful Mathematician, that an *Ellipſis is made by the Section of a Cone*, he believes the Propoſition, or he believes the Sentence is true, as it is made up of Terms which his Informant underſtands, tho' the Ideas be unknown to him; *that is*, he believes there are ſome Ideas which his Informant has under theſe Words which are really connected. And, I think this may juſtly be called, *believing the Propoſition*, for it is a Belief of ſomething more than the mere *joining of Sounds*; it is a Belief of the real Connection of ſome unknown Ideas belonging to thoſe Sounds: and in this Senſe a Man may be ſaid to believe the Truth of a Propoſition, which he doth not underſtand at all.

With more Reaſon ſtill may we be ſaid to *believe a Propoſition* upon credible Teſtimony, if we have *ſome* ſort of Ideas under the Terms, tho' they are but partial or inadequate, and obſcure; ſuch as *Divine Anſwers were given by Urim* and *Thummim:* For ſince it is purely upon Teſtimony we believe the *known Parts* of the Ideas ſignified by thoſe Words to be connected, upon the ſame Teſtimony we may alſo believe all the *unknown Parts* of the Ideas ſignified by thoſe Words to be connected, (*viz.*) becauſe our Informant is knowing and faithful. And in this Senſe we may juſtly be ſaid to believe a Propoſition of Scripture *entirely*, which we underſtand but very *imperfectly*, becauſe God who reveals it is knowing and faithful in Perfection.

And indeed, unleſs this Repreſentation of the Matter be allowed, there are but very few Propoſitions in the World, even in *human Things*, to which we can give an entire Aſſent, or which we may be ſaid either *to know*, or *to believe*, becauſe there is ſcarce any thing on Earth of which we have an adequate and moſt perfect Idea. And it is evident that in *Divine Things* there is ſcarce any thing which we could either know or believe without this Allowance: For tho' Reaſon and Revelation join to inform me, that *God is holy*, how exceeding inadequate are my Ideas of *God*, and of his *Holineſs?* yet I may boldly and entirely aſſent to this whole Propoſition, ſince I am ſure that every known and unknown Idea ſignified by the Term *God*

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cate together with utmost Attention, and observe how far they agree, and wherein they differ: Whether the Proposition may be affirmed *Absolutely* or *Relatively*, whether in *Whole* or in *Part*, whether *Universally* or *Particularly*, and then under *what particular Limitations.* Turn these Ideas about in your Mind, and take a View of them on all Sides, just as a *Mason* would do to see whether two hewn Stones exactly suit each other in every Part, and

is connected with the Ideas of the Term *Holiness*, because Reason partly informs me, but especially because the Divine Testimony which has connected them, is certainly credible.

I might argue upon this Head perhaps more forcibly from the Doctrine of *God's Incomprehensibleness.* If we could believe nothing but what we have Ideas of, it would be impossible for us to believe that *God is Incomprehensible:* For this implies in it a Belief that there are some unknown Ideas belonging to the Nature of God. Therefore we do both believe and profess something concerning unknown Ideas, when we believe and profess that *God is Incomprehensible.*

I persuade myself that most of those very Persons who object against my Representation of Things, will yet readily confess, *they believe* all the Propositions in Scripture, rather than declare *They do not believe several of them*; tho' they must acknowledge that several of them are far above their Understanding, or that they have scarce any Ideas of the true Sense of them. And therefore where Propositions deriv'd from credible Testimony are made up of dark or inadequate Ideas, I think it is much more proper to say, *We believe them*, than that *We do not believe them*, lest we cut off a Multitude of the Propositions of the Bible from our Assent of Faith.

Yet let it be observ'd here, that when we believe a Proposition on mere Testimony, of which we have no Ideas at all, we can only be said to give a *general implicit Assent to the Truth of that Proposition*, without any particular Knowledge of, or *explicit Assent to the special Truth contained in that Proposition:* And this our *implicit Assent* is of very little Use, unless it be to testify our Belief of the Knowledge and Veracity of him that informs us.

As our Ideas of a Proposition are more or less clear and adequate, as well as just and proper, so we do explicitly assent more or less to the *particular Truth* contained in that Proposition. And our Assent hereby becomes more or less useful for the Encrease of our Knowledge or the Direction of our Practice.

When Divine Testimony plainly proposes to our Faith such a Proposition whereof we have but obscure, doubtful and inadequate Ideas, we are bound implicitly to believe the Truth of it, as express in those Terms, in order to shew our Submission to God who revealed it, as a God of perfect Knowledge and Veracity: But it is our Duty to use all proper Methods to obtain a farther and explicit Knowledge of the *particular Truth* contain'd in the Proposition, if we would improve by it either in Knowledge or Virtue. All necessary Rules of Grammar and Criticism should be employed to find out the very Ideas that belong to those Words, and which were design'd by the Divine Speaker or Writer. Tho' we may believe the Truth of a Proposition which we do not understand, yet we should endeavour to understand every Proposition which we believe to be true.

are fit to be join'd in erecting a carved or fluted Pillar.

Compare the *whole Subject* with the *whole Predicate* in their ſeveral Parts: Take heed in this Matter that you neither add to, or diminiſh the Ideas contain'd in the Subject or in the Predicate; for ſuch an Inadvertence or Miſtake will expoſe you to great Error in Judgment.

IV. *Direct. Search for Evidence of Truth with Diligence and Honeſty, and be heartily ready to receive Evidence, whether for the Agreement or Diſagreement of Ideas.*

Search with Diligence; ſpare no Labour in ſearching for the Truth in due proportion to the Importance of the Propoſition. Read the beſt Authors who have writ on that Subject; conſult your wiſe and learned Friends in Converſation; and be not unwilling to borrow Hints toward your Improvement, from the meaneſt Perſon, nor to receive any Glimpſe of Light from the moſt Unlearned. *Diligence* and *Humility* is the Way to thrive in the Riches of the Underſtanding, as well as in Gold or Silver. Search carefully for the Evidence of Truth, and *dig for Wiſdom as for hid Treaſure.*

Search with a ſteady Honeſty of Soul, and a ſincere Impartiality to find the Truth. Watch againſt every Temptation that might bribe your Judgment, or warp it aſide from Truth. Do not indulge yourſelf to *wiſh any unexamined Propoſition were true or falſe.* A Wiſh often perverts the Judgment, and tempts the Mind ſtrangely to believe upon ſlight Evidence whatſoever we wiſh to be true, or to renounce whatſoever we wiſh to be falſe.

V. *Direct.* Since the Evidence of the Agreement or Disagreement of two Ideas is the Ground of our Assent to any Proposition, or the great *Criterion* of Truth; therefore *we should suspend our Judgment, and neither affirm or deny till this Evidence appear.*

This *Direction* is different from the *second*; for tho' the *Evidence of the Agreement or Disagreement of two Ideas* most times depend on the *Clearness* and *Distinctness of the Ideas themselves*, yet it does not always arise thence. *Testimony* may be a sufficient Evidence of the Agreement or Disagreement of two obscure Ideas, as we have seen just before in the *Exception* under the *second Direction.* Therefore, tho' we are not universally, and in all Cases bound to suspend our Judgment *till our Ideas of the Objects themselves are clear and distinct*, yet we must always suspend our Judgment, and withhold our Assent to, or Denial of any Proposition, *till some just Evidence appear of its Truth or Falshood.* It is an Impatience of Doubt and Suspence, a Rashness and Precipitance of Judgment, and Hastiness to believe something on one Side or the other, that plunges us into many Errors.

This *Direction* to delay and suspend our Assent, is more particularly necessary to be observed when such Propositions offer themselves to us as are supported by *Education*, *Authority*, *Custom*, *Inclination*, *Interest*, or other powerful Prejudices; for our Judgment is led away insensibly to believe all that they dictate; and where Prejudices and Dangers of Error are multiplied, we should set the stricter Guard upon our Assent.

Yet remember the *Caution* or Limitation here which I gave under the *first Direction*, (*viz.*) that this is not to be too strictly applied to Matters of *daily Practice*, either in human Life or Religion;

but when we consider ourselves as *Philosophers* or *Searchers after Truth*, we should always with-hold our Assent where there is not just Evidence: And as far and as fast as we can in a due Consistence with our daily necessary Duties we should also reform and adjust all our Principles and Practices both in Religion and the civil Life by these Rules.

VI. *Direct.* We must *judge of every Proposition by those proper* and *peculiar Mediums or Means whereby the Evidence of it is to be obtain'd*, whether it be *Sense*, *Consciousness*, *Intelligence*, *Reason*, or *Testimony*. All our Faculties and Powers are to be employ'd in judging of their proper Objects.

If we judge of *Sounds*, *Colours*, *Odours*, *Sapors*, the *Smoothness*, *Roughness*, *Softness* or *Hardness of Bodies*, it must be done by the Use of our *Senses*: But then we must take heed that our Senses are well dispos'd, as shall be shewn afterward.

And since our *Senses* in their various Exercises are in some Cases liable to be deceiv'd, and more especially when by our Eyes or Ears we judge of the *Figure*, *Quantity*, *Distance*, and *Position* of Objects that are *afar off*, we ought to call our *Reason* into the Assistance of our Senses, and correct the Errors of *one Sense* by the help of *another*.

It is by the Powers of *Sense* and *Reason join'd* together that we must judge philosophically of the *inward Nature*, the *secret Properties* and *Powers*, the *Causes* and *Effects*, the *Relations* and *Proportions* of a thousand corporeal Objects which surround us on Earth, or are placed at a distance in the Heavens. If a Man on the one hand confines himself only to *sensible Experiments*, and does not exercise *Reason* upon them, he may surprise himself

himself and others with strange Appearances, and learn to entertain the World with Sights and Shews, but will never become a Philosopher: And on the other hand, if a Man imprison himself in his Closet, and employ the most exquisite Powers of *Reason* to find out the Nature of Things in the corporeal World, without the Use of his *Senses*, and the Practice of *Experiments*, he will frame to himself a Scheme of *Chimeras* instead of true Philosophy. Hence came the Invention of *substantial Forms* and *Qualities*, of *Materia Prima* and *Privation*, with all the insignificant Names us'd by the *Peripatetick* Writers; and it was for want of more Experiments that the Great *Descartes* fail'd in several Parts of his philosophical Writings.

In the *abstracted* and *speculative* Parts of the *Mathematicks*, which treat of *Quantity* and *Number*, the Faculty of *Reason* must be chiefly employ'd to perceive the *Relation of various Quantities*, and draw certain and useful *Conclusions*; but it wants the Assistance of *Sense* also to be acquainted with *Lines*, *Angles* and *Figures*. And in *practical Mathematicks* our *Senses* have still greater Employment.

If we would judge of the *pure Properties, and Actions of the Mind*, of the *Nature of Spirits*, their various *Perceptions* and *Powers*, we must not enquire of our Eyes and our Ears, nor the Images or Shapes laid up in the Brain, but we must have recourse to our own *Consciousness* of what passes within our own Mind.

If we are to pass a Judgment upon any thing that relates to *Spirits in a State of Union with Animal Nature*, and the mixt Properties of *Sensation*, *Fancy*, *Appetite*, *Passion*, *Pleasure* and *Pain*, which arise thence, we must consult our own *Sensations* and the other Powers

Powers which we find in ourſelves conſider'd as *Men* or *Creatures made up of a Mind and an Animal*; and by juſt *Reaſonings* deduce proper Conſequences, and improve our Knowledge in theſe Subjects.

If we have Occaſion to judge concerning *Matters done in paſt Ages*, or in *diſtant Countries*, and where we ourſelves cannot be preſent, the Powers of *Senſe* and *Reaſon* (for the moſt part) are not ſufficient to inform us, and we muſt therefore have recourſe to the *Teſtimony* of others: and this is either *divine* or *human*.

In Matters of *mere human Prudence*, we ſhall find the greateſt Advantage by making wiſe *Obſervations* on our own *Conduct*, and the Conduct of others, and a *Survey of the Events* attending ſuch Conduct. *Experience* in this Caſe is equal to a *natural Sagacity*, or rather ſuperior. A *Treaſure* of *Obſervations* and *Experiences* collected by wiſe Men, is of admirable Service here. And perhaps there is nothing in the World of this kind equal to the ſacred *Book* of *Proverbs*, even if we look on it as a mere human Writing.

In Queſtions of *Natural Religion* we muſt exerciſe the Faculty of *Reaſon* which God has given us; and ſince he has been pleaſed to afford us *his Word*, we ſhould confirm and improve or correct our Reaſonings on this Subject by the Divine Aſſiſtance of the Bible.

In Matters of *reveal'd Religion*, that is, *Chriſtianity*, *Judaiſm*, &c. which we could never have known by the Light of Nature, the *Word of God* is our only Foundation and chief Light; tho' here our *Reaſon* muſt be us'd both to find out the true Meaning of God in his Word, and to derive juſt Inferences from what God has written, as well as to judge of the Credentials whereby *Divine Teſtimony* is diſtinguiſh'd from *mere human Teſtimony*, or from *Impoſture*.

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As *Divine Revelation* can never contradict *right Reason*, (for they are two great Lights given us by our Creator for our Conduct) so *Reason* ought by no Means to assume to itself a Power to contradict *Divine Revelation.*

Tho' *Revelation* be not *contrary to Reason*, yet there are *four Cases* wherein Matters of *Revelation* may be said to rise *above*, or go *beyond our Reason.*

1. *When* Revelation *asserts two Things of which we have clear Ideas, to be join'd, whose Connection or Agreement is not discoverable by* Reason; as when Scripture informs us that *The Dead shall rise*, that *The Earth shall be burnt up*, and the *Man Christ Jesus shall return from Heaven*, none of these Things could ever be found out or prov'd by Reason.

2. *When* Revelation *affirms any Proposition, while* Reason *has no clear and distinct Ideas of the Subject, or of the Predicate*; as *God created all Things by* Jesus Christ: By *the* Urim *and* Thummim *God gave forth Divine Oracles.* The Predicate of each of these Propositions is to us an obscure Idea, for we know not what was the *peculiar Agency* of *Jesus Christ* when God the Father created the World by him; nor have we any clear and certain Conception what the *Urim* and *Thummim* were, nor how God gave Answers to his People by them.

3. *When* Revelation, *in plain and express Language, declares some Doctrine which our* Reason *at present knows not with evidence and certainty how or in what Sense to reconcile to some of its own Principles*; as, that *the Child Jesus is the mighty God*, Esa. ix. 6. which carries a seeming Opposition to the *Unity* and *Spirituality of the Godhead*, which are Principles of *Reason.*

4. *When two Propositions or Doctrines are plainly asserted*

asserted by divine Revelation, *which our* Reason *at present knows not how or in what Sense with Evidence and Certainty to reconcile with one another*; as, *The Father is the only true God*, John xvii. 3. and yet *Christ is over all, God blessed for ever*, Rom. ix. 5.

Now *divine Revelation* having declar'd all these Propositions, *Reason* is bound to receive them, because it cannot prove them to be utterly inconsistent or impossible, tho' the Ideas of them may be obscure, tho' we ourselves see not the rational Connection of them, and tho' we know not certainly how to reconcile them. In these Cases *Reason* must submit to *Faith*; that is, *we are bound to believe what God asserts*, and wait till he shall clear up that which seems dark and difficult, and till the *Mysteries* of *Faith* shall be farther explain'd to us either in this World or in the World to come *, and *Reason* itself dictates this Submission.

VIIth *Direction.* It is very useful to *have some general Principles of Truth settled in the Mind, whose Evidence is great and obvious, that they may be always ready at hand to assist us in judging of the great Variety of Things which occur.* These may be call'd *first Notions*, or *fundamental Principles*; for tho' many of them are deduced from each other, yet most or all of them may be call'd *Principles* when compar'd with a thousand other Judgments which we form under the Regulation and Influence of these primary Propositions.

Every Art and Science, as well as the Affairs of civil Life and Religion, have peculiar Principles of this kind belonging to them. There are *Metaphysical, Physical, Mathematical, Political, Oeconomical, Medicinal, Theological, Moral* and *Pru-*

* See something more on this Subject, *Direct.* II. *preced.* and *Chap.* V. *Sect.* 6.

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dential Principles of Judgment. It would be too tedious to give a Specimen of them all in this Place. Those which are of the most universal Use to us both as *Men* and as *Christians*, may be found in the following Chapter among the *Rules of Judgment about particular Objects.*

VIIIth *Direction.* Let the *Degrees of your Assent to every Proposition bear an exact Proportion to the different Degrees of Evidence.* Remember this is one of the greatest Principles of Wisdom that Man can arrive at in this World, and the best human Security against dangerous Mistakes in Speculation or Practice.

In the Nature of Things of which our Knowledge is made up there is infinite Variety in their Degrees of Evidence. And as God hath given our Minds a Power to suspend their Assent till the Evidence be plain, so we have a Power to receive Things which are propos'd to us with a stronger or weaker Belief in infinite Variety of Degrees proportionable to their Evidence. I believe that *the Planets are inhabited*, and I believe that *the Earth rolls amongst them yearly round the Sun*; but I don't believe both these Propositions with an equal Firmness of Assent, because the Arguments for the latter are drawn from *mathematical Observations*; but the Arguments for the former are but *probable Conjectures* and *moral Reasonings*. Yet neither do I believe either of these Propositions so firmly, as I do that *the Earth is about twenty four thousand Miles round*, because the *mathematical* Proof of this is much easier, plainer and stronger. And yet farther, when I say that *the Earth was created by the Power of God*, I have still a more infallible Assurance of this than of all the rest, because *Reason* and *Scripture* join to assure me of it.

IXth *Di-*

IXth *Direction. Keep your Mind always open to receive Truth, and never ſet Limits to your own Improvements.* Be ready always to hear what may be objected even againſt your favourite Opinions, and thoſe which have had longeſt Poſſeſſion of your Aſſent. And if there ſhould be any new and uncontroulable Evidence brought againſt theſe old or beloved Sentiments, don't wink your Eyes faſt againſt the Light, but part with any thing for the ſake of Truth: Remember when you overcome an Error you gain Truth; the Victory is on your Side, and the Advantage is all your own.

I confeſs thoſe *grand Principles of Belief and Practice* which univerſally influence our Conduct both with Regard to this Life and the Life to come, ſhould be ſuppos'd to be well ſettled in the firſt Years of our Studies, ſuch as, *the Exiſtence and Providence of God, the Truth of Chriſtianity, the Authority of Scripture, the great Rules of Morality, &c.* We ſhould avoid a light fluttering Genius, ever ready to change our Foundations, and to be *carried about with every Wind of Doctrine.* To guard againſt which Inconvenience, we ſhould labour with earneſt Diligence and fervent Prayer, that our moſt fundamental and important Points of Belief and Practice may be eſtabliſh'd upon juſt Grounds of *Reaſon* and *Scripture* when we come to Years of Diſcretion, and fit to judge for ourſelves in ſuch important Points. Yet ſince it is impoſſible that the Folly or Prejudices of younger Years may have eſtabliſh'd Perſons in ſome miſtaken Sentiments, even in very important Matters, we ſhould always hold ourſelves ready to receive any new Advantage toward the Correction or Improvement even of our *eſtabliſh'd Principles,* as well as *Opinions* of leſſer Moment.

CHAP.

CHAP. V.

Special Rules to direct us in judging of particular Objects.

IT would be endless to run thro' all those particular Objects concerning which we have Occasion to pass a Judgment at one time or another. Things of the most frequent Occurrence, of the widest Extent, and of the greatest Importance, are the Objects and Exercises of *Sense*, of *Reason* and *Speculation*, the Matters of *Morality*, *Religion* and *Prudence*, of *human* and *divine Testimony*, together with the *Essays of Reasoning upon Things past and future*. Special Rules relating to all these will be the Subject of the following Sections.

SECT. I.

Principles and Rules of Judgment concerning the Objects of Sense.

THO' our *Senses* are sometimes liable to be deceiv'd, yet when they are rightly *disposed*, and fitly exercised about their *proper Objects*, with the just Assistance of *Reason*, they give us sufficient Evidence of Truth.

This may be prov'd by an Argument drawn from the *Wisdom*, *Goodness*, and *Faithfulness of God our Creator*. It was he gave us our *Senses*, and he would not make us of such a Constitution as to be liable to perpetual Deception and unavoidable Error in using these Faculties of *Sense* in the best manner we are capable of, about these very

very Things which are the proper Objects of them.

This may be prov'd also by the *ill Consequences that would follow from the Supposition of the contrary.* If we could have no Certainty of the Dictates of our Senses, we could never be sure of any of the common Affairs and Occurrences of Life. Men could not transact any of their *civil* or *moral* Concerns with any Certainty or Justice; nor indeed could we eat or drink, walk or move with Safety. Our *Senses* direct us in all these.

Again, the *Matters of Religion* depend in some Measure upon the Certainty of the *Dictates* of *Sense*; for *Faith comes by Hearing*; and it is to our Senses that God appeals in *working Miracles* to prove his own Revelation. Now if when our Eyes and Ears, and other Organs of Sense are rightly dispos'd and exercis'd about their proper Objects, they were always liable to be deceiv'd, there could be no Knowledge of the Gospel, no Proof of divine Revelation by Visions, Voices, or Miracles.

Our Senses will discover Things near us and round about us, which are necessary for our present State with sufficient Exactness, and Things distant also, so far as they relate to our necessary Use of them.

Nor is there need of any more accurate *Rules* for the Use of our Senses in the Judgment of all the *common Affairs of Life*, or even of *miraculous* and *divine Operations*, than the vulgar Part of Mankind are sufficiently acquainted with by Nature, and by their own daily Observations.

But if we would express these *Rules* in a more exact manner, *how to judge by the Dictates of our Senses*, they should be represented thus.

1. We

1. We must take care that the *Organs of our Sense be rightly dispos'd*, and not under the Power of any Distemper or considerable Decay; as for Instance, that our *Eyes* are not tinctured with the *Jaundice*, when we would judge of *Colours*, lest we pronounce them all *yellow:* That our *Hands* are not burning in a *Fever*, nor benumm'd with *Frost* or the *Palsy*, when we would judge of the *Heat* or *Coldness* of any Object: That our *Palate* be not vitiated by any *Disease*, or by some other *improper Taste*, when we would judge of the true *Taste* of any Solid or Liquid. This Direction relates to *all our Senses*, but the following Rules chiefly refer to our *Sight*.

2. We must observe whether the *Object be at a proper Distance*, for if it be too near or too far off, our Eyes will not sufficiently distinguish many Things which are properly the Objects of Sight; and therefore (if possible) we must make nearer Approaches to the Object, or remove farther from it, till we have obtained that due Distance which gives us the clearest Perception.

3. We must not employ our Sight to take a full Survey at once of *Objects that are too large for it*, but we must view them by Parts, and then judge of the Whole: Nor must our Senses judge of *Objects too small*, for some Things which appear thro' Glasses to be really and distinctly existent, are either utterly invisible, or greatly confus'd when we would judge of them by the naked Eye.

4. We must place *ourselves* in such a *Position toward the Object*, or place the *Object* in such a *Position toward our Eye*, as may give us the clearest Representation of it; for a different Position greatly alters the Appearance of the Shape of Bodies. And for this Reason we should change the

Position both of the *Eye* and the *Object* in some Cases, that by viewing the *Object* in several Appearances we may pass a more compleat and certain Judgment concerning it.

5. We must consider what the *Medium is by which Objects are represented* to our Senses; whether it be thinner or thicker; whether it be Air, or Vapour, or Water, or Glass, *&c.* whether it be duly enlightned or dusky; whether it reflect, or refract, or only transmit the Appearance of the Object; and whether it be tinctur'd with any particular Colour; whether it be moving or at Rest.

6. We must sometimes use *other Helps* to assist our Senses; and if we make use of *Glasses*, we must make all just Allowances for the Thickness or Thinness of them, for the Clearness or Dulness, for the Smoothness or Roughness, for the Plainness, the Convexity or Concavity of them, and for the Distance at which these Glasses are placed from the Eye, or from the Object, (or from one another, if there be two or more Glasses used) and all this according to the Rules of Art. The same sort of Caution should be used also in *Mediums* which assist the Hearing, such as *Speaking-Trumpets*, *Hearing-Trumpets*, &c.

7. If the Object may be proposed to *more Senses than one*, let us call in the Assistance of some other Senses to examine it, and this will increase the Evidence of what one Sense dictates. *Ex. gr.* Our *Ear* may assist our *Eye* in judging of the Distance of Bodies, which are both visible and sonorous, as an *exploded Canon*, or a *Cloud charged* with Thunder. Our *Feeling* may assist our *Sight* in judging of the Kind, the Shape, Situation or Distance of Bodies that are near at Hand, as whether a *Garment* be *Silk* or *Stuff*, *&c.* So if I both

see, *hear*, and *embrace my Friend*, I am sure he is present.

8. We should also make *several Trials*, at some distant Times, and in different Circumstances, comparing former Experiments with later, and our own Observations with those of other Persons.

It is by such Methods as these that *modern Philosophy* has been so greatly improved by the use of *sensible Experiments*.

Sect. II.

Principles and Rules of Judgment in Matters of Reason and Speculation.

IT is by *Reason* we judge both in Matters of *Speculation* and *Practice*; there are peculiar *Rules* which relate to Things *practical*, whether they be Matters of *Religion*, *Morality*, or *Prudence*, yet many Things in this Section may be applied to *practical* Enquiries, and Matters of *Faith*, tho' it chiefly relates to *Knowledge* or *Speculations* of Reason.

1. Whatsoever clear Ideas we can join together without Inconsistency, are to be counted *possible*, because Almighty Power can make whatsoever we can conceive.

2. From the mere *Possibility* of a Thing we cannot infer its *actual Existence*; nor from the *Non-Existence* of it can we infer its *Impossibility*.

Note, The Idea of *God* seems to claim an Exemption from this general Rule; for if he be possible, he certainly exists, because the very Idea includes *Eternity*, and he cannot begin to be: If he exist not, he is impossible, for the very same Reason.

3. Whatſoever is evidently contain'd in the Idea of any thing, may be affirmed of that thing with Certainty. *Reaſon* is contained in the Idea of a *Man*; and *Exiſtence* is contained in the Idea of God; and therefore we may affirm *God exiſts*, and *Man is reaſonable.*

4. It is impoſſible that the ſame thing ſhould be, and not be at the ſame Time, and in the ſame Reſpect. Thence it follows, that *two contradictory Ideas cannot be joined in the ſame Part of the ſame Subject, at the ſame Time, and in the ſame Reſpects:* Or, that *two contradictory Propoſitions can never be both true.*

5. The more we converſe with any *Subject in its various Properties*, the better Knowledge of it we are likely to attain; and by frequent and repeated Enquiries and Experiments, Reaſonings and Converſations about it, we confirm our true Judgments of that Thing, and correct our former Miſtakes.

6. Yet after our utmoſt Enquiries, we can never be aſſured by Reaſon, that we know *all the Powers and Properties* of any *finite Being.*

7. If *finite* Beings are not adequately known by us, much leſs are Things *infinite:* For it is of the Nature of a *finite Mind* not to be able to comprehend what is *infinite.*

8. We may judge and argue very juſtly and certainly concerning *Infinites*, in ſome Parts of them, or ſo far as our Ideas reach, tho' the *Infinity* of them hath ſomething incomprehenſible in it. And this is built on the *general Rule* following, (*viz.*)

9. Whatſoever is ſufficiently clear and evident ought not to be denied, tho' there are other things belonging to the ſame Subject which cannot be comprehended. I may affirm many Things with Certainty

Certainty concerning *human Souls*, *their Union with Bodies*, concerning the *Divisibility of Matter*, and the *Attributes of God*, tho' many other Things relating to them are all Darkness to us.

10. If an Opinion propos'd has either *no Arguments*, or *equal Arguments* for and against it, we must remain in perfect Suspence about it, till convincing Evidence appear on one Side.

11. Where present Necessity of Action does not constrain us to determine, we should not immediately yield up our Assent to mere *probable Arguments*, without a due Reserve, if we have any reasonable Hope of attaining greater Light and Evidence on one Side or the other: For when the Balance of the Judgment once resigns its *Equilibrium* or *Neutrality* to a mere probable Argument, it is too ready to settle itself on that Side, so that the Mind will not easily change that Judgment, tho' bright and strong Evidence appear afterwards on the other Side.

12. Of two Opinions if one has *unanswerable Difficulties* attending it, we must not reject it immediately, till we examine whether the contrary Opinion has not *Difficulties as unanswerable*.

13. If each Opinion has *Objections* against it which we cannot answer, or reconcile, we should rather embrace that which has the *least Difficulties* in it, and which has the *best Arguments* to support it: And let our Assent bear Proportion to the superior Evidence.

14. If any Doctrine hath very strong and *sufficient Light* and *Evidence* to command our Assent, we should not reject it because there is an *Objection or two* against it which we are not able to answer; for upon this Foot a common Christian would be baffled out of every *Article of his Faith*, and must renounce even the *Dictates of his Rea-*

ſon and his Senſes; and the moſt learned Man perhaps would hold but very few of them faſt; for ſome Objections which attend the ſacred Doctrines of the *Eternity* and the *Omnipreſence of God*, and the philoſophical Doctrines of *Light*, *Atoms*, *Space*, *Motion*, *&c.* are hardly ſolvable to this Day.

15. Where two Extremes are propoſed, either in Matters of Speculation or Practice, and neither of them has *certain and convincing Evidence*, it is generally ſafeſt to take the *middle Way*. *Moderation* is more likely to come near the Truth than *doubtful Extremes*. This is an excellent Rule to judge of the *Characters* and *Value* of the greateſt Part of *Perſons and Things*; for Nature ſeldom deals in *Superlatives*. It is a good Rule alſo by which to form our Judgment in many *ſpeculative Controverſies*; a *reconciling Medium* in ſuch Caſes does often beſt ſecure Truth as well as Peace.

16. When two different Propoſitions have each a *very ſtrong and cogent Evidence*, and do not plainly appear inconſiſtent, we may believe both of them, tho' we cannot at preſent ſee the Way to reconcile them. *Reaſon*, as well as our own *Conſciouſneſs*, aſſures us that the *Will of Man is free*, and that *Multitudes of human Actions are in that Reſpect contingent*; and yet *Reaſon* and *Scripture* aſſure us that *God foreknows them all*, and this implies a *certain Futurity*. Now tho' learned Men have not to this Day hit on any ſo clear and happy Method as is deſired to reconcile theſe Propoſitions, yet ſince we do not ſee a *plain Inconſiſtency* in them, we juſtly believe them both, becauſe their Evidence is great.

17. Let us not therefore too ſuddenly determine in difficult Matters that two Things are *utterly inconſiſtent:* For there are many Propoſitions which may

may appear *inconsistent* at first, and yet afterwards we find their *Consistency*, and the Way of reconciling them may be made plain and easy: As also, there are other Propositions which may appear *consistent* at first, but after due Examination we find their *Inconsistency*.

18. For the same Reason we should not call those Difficulties utterly *insolvable*, or those Objections *unanswerable*, which we are not presently able to answer: Time and Diligence may give farther Light.

19. In short, if we will secure ourselves from Error, we should not be too frequent or hasty in asserting the certain *Consistency* or *Inconsistency*, the absolute *Universality*, *Necessity*, or *Impossibility* of Things, where there is not the brightest Evidence. He is but a young and raw Philosopher, who, when he sees two *particular* Ideas *evidently agree*, immediately asserts them to agree *universally*, to agree *necessarily*, and that it is *impossible it should be otherwise:* Or when he sees evidently that two *particular* Ideas happen to *disagree*, he presently asserts their constant and *natural Inconsistency*, their *utter Impossibility* of Agreement, and calls every thing contrary to his Opinion *Absurdity* and *Nonsense*. A true Philosopher will affirm or deny with much Caution or Modesty, unless he has thoroughly examin'd and found the Evidence of every Part of his Assertion exceeding plain.

20. Let us have a Care of building our Assurance of any *important* Point of Doctrine upon *one single Argument*, if there are more to be obtain'd. We should not slight and reject all other Arguments which support the same Doctrine, lest if our *favourite Argument* should be refuted, and fail us, we should be tempted to abandon that *important* Principle of Truth. I think this was a very

culpable Practice in *Descartes*, and some of his Followers, who when he had found out the Argument for the *Existence of God*, deriv'd from the *Idea of a most perfect and self-existent Being*, he seem'd to despise and abandon all other Arguments against *Atheism*.

21. If we happen to have our *chief Arguments* for any Opinion refuted, we should not immediately give up the *Opinion* itself; for perhaps it may be a Truth still, and we may find it to be justly supported by other Arguments, which we might once think weaker, or perhaps by new Arguments which we knew not before.

22. We ought to esteem that to be *sufficient Evidence of a Proposition*, where both the *Kind* and the *Force* of the Arguments or Proofs are as great as the Nature of the Thing admits, and as the Necessity or Exigence of the Case requires. So if we have a *credible and certain Testimony* that *Christ rose from the Dead*, it is enough; we are not to expect *mathematical* or *ocular Demonstration* for it, at least in our Day.

23. Tho' we should seek what Proofs may be attain'd of any Proposition, and we should receive any Number of Arguments which are just and evident for the Confirmation of the same Truth, yet we must not judge of the Truth of any Proposition by the *Number* of *Arguments* which are brought to support it, but by the *Strength and Weight of them:* A Building will stand firmer and longer on four large Pillars of Marble, than on ten of Sand, or Earth, or Timber.

24. Yet where certain Evidence is not to be found or expected, a considerable *Number of probable Arguments* carry great Weight with them even in Matters of Speculation. That is a *probable Hypothesis* in *Philosophy* or in *Theology*, which goes

goes fartheſt toward the Solution of many difficult Queſtions ariſing on any Subject.

Sect. III.

Principles and Rules of Judgment in Matters of Morality and Religion.

HERE it may be proper in the firſt Place to mention a few Definitions of Words or Terms.

By Matters of *Morality* and *Religion*, I mean thoſe things which relate to our Duty to God, our Selves, or our Fellow-Creatures.

Moral Good, or *Virtue*, or *Holineſs*, in an Action or Temper conformable to the Rule of our Duty. *Moral Evil*, or *Vice*, or *Sin*, is an Action or Temper unconformable to the Rule of our Duty, or a Neglect to fulfil it.

Note, The Words *Vice* or *Virtue*, chiefly imply the Relation of our Actions to Men and this World: *Sin* and *Holineſs* rather imply their Relation to God and the other World.

Natural Good is that which gives us Pleaſure or Satisfaction. *Natural Evil* is that which gives us Pain or Grief.

Happineſs conſiſts in the Attainment of the higheſt and moſt laſting natural Good. *Miſery* conſiſts in ſuffering the higheſt and moſt laſting natural Evil; that is, in ſhort, *Heaven* or *Hell*.

Tho' this be a juſt Account of *perfect Happineſs* and *perfect Miſery*, yet whereſoever *Pain* overbalances *Pleaſure*, there is a *Degree of Miſery*; and whereſoever *Pleaſure* overbalances *Pain*, there is a *Degree of Happineſs*.

I proceed

I proceed now to lay down ſome *Principles and Rules of Judgment in Matters of Morality and Religion.*

1. The Will of our Maker, whether diſcovered by Reaſon or Revelation, carries the higheſt Authority with it, and is therefore the *higheſt Rule of Duty* to intelligent Creatures; a Conformity or Non-conformity to it determines their Actions to be *morally good* or *evil.*

2. Whatſoever is really an *immediate* Duty toward our ſelves, or toward our Fellow-Creatures, is more *remotely* a Duty to God; and therefore in the Practice of it we ſhould have an Eye to the *Will* of God as our *Rule*, and to his *Glory* as our *End.*

3. Our wiſe and gracious Creator has cloſely united *our Duty* and *our Happineſs* together; and has connected *Sin* or *Vice*, and *Puniſhment*; that is, he has ordain'd that the *higheſt natural Good and Evil* ſhould have a cloſe Connection with *moral Good and Evil*, and that both in the Nature of Things, and by his own poſitive Appointment.

4. Conſcience ſhould ſeek all due Information in order to determine what is *Duty*, and what is *Sin*, becauſe *Happineſs* and *Miſery* depend upon it.

5. On this Account our Inclination to *preſent temporal Good*, and our Averſion to *preſent temporal Evil*, muſt be wiſely overbalanced by the Conſideration of *future and eternal Good or Evil*, that is, *Happineſs* or *Miſery*. And for this Reaſon we ſhould not omit a Duty, or commit a Sin, to gain any temporal Good, or to avoid any temporal Evil,

6. Tho'

6. Tho' our *natural Reason* in a *State of Innocence* might be sufficient to find out those Duties which were necessary for an innocent Creature, in order to *abide* in the Favour of his Maker, yet in a *fallen State* our *natural Reason* is by no means sufficient to find out all that is necessary to *restore* a sinful Creature to the divine Favour.

7. Therefore God hath condescended in various Ages of Mankind to reveal to sinful Men what he requires of them in order to their *Restoration*, and has appointed in his Word some peculiar Matters of Faith and Practice, in order to their Salvation. This is call'd *reveal'd Religion*, as the Things knowable concerning God, and our Duty by the Light of Nature are call'd *natural Religion*.

8. There are also many Parts of *Morality*, and *natural Religion*, or many natural Duties relating to God, to our selves, and to our Neighbours, which would be exceeding difficult and tedious for the Bulk of Mankind to find out and determine by *natural Reason*; therefore it has pleased God in this sacred Book of *Divine Revelation* to express the most necessary Duties of this kind in a very plain and easy manner, and made them intelligible to Souls of the lowest Capacity; or they may be very easily deriv'd thence by the Use of Reason.

9. As there are some Duties much more *necessary*, and more *important* than others are, so every Duty requires our Application to understand and practise it in Proportion to its *Necessity* and *Importance*.

10. Where two Duties seem to stand in Opposition to each other, and we cannot practise both, the *less* must give Way to the *greater*, and the Omission of the less is not sinful. So *ceremonial*

nial Laws give Way to *moral:* God *will have Mercy and not Sacrifice.*

11. In Duties of *natural Religion*, we may judge of the different Degrees of their Neceſſity and Importance by *Reaſon*, according to their greater or more apparent Tendency to the Honour of God and the good of Men: But in Matters of *reveal'd Religion*, it is only *divine Revelation* can certainly inform us what is moſt neceſſary and moſt important; yet we may be aſſiſted alſo in that Search by the Exerciſes of Reaſon.

12. In Actions wherein there may be *ſome ſcruple* about the *Duty* or *Lawfulneſs* of them, we ſhould chooſe always the *ſafeſt Side*, and abſtain as far as we can from the Practice of Things whoſe Lawfulneſs we ſuſpect.

13. Points of the *greateſt Importance* in human Life, or in Religion, are generally the *moſt evident*, both in the Nature of Things and in the Word of God; and where Points of Faith or Practice are *exceeding difficult* to find out, they cannot be *exceeding important.* This Propoſition may be proved by the Goodneſs and Faithfulneſs of God, as well as by Experience and Obſervation.

14. In ſome of the outward Practices and Forms of Religion, as well as human Affairs, there is frequently a *preſent Neceſſity of ſpeedy Action* one Way or another: In ſuch a Caſe, having ſurveyed Arguments on both Sides, as far as our Time and Circumſtances admit, we muſt guide our Practice by *thoſe Reaſons which appear moſt probable*, and ſeem at that Time to *overbalance* the reſt; yet always reſerving room to admit farther Light and Evidence, when ſuch Occurrences return again. It is a *Preponderation of circumſtantial Arguments*

Arguments that must determine our Actions in a thousand Occurrences.

15. We may also determine upon *probable Arguments* where the matter is of *small Consequence* and would not answer the Trouble of seeking after *Certainty*. Life and Time are more precious than to have a large Share of them laid out in scrupulous Enquiries, whether *smoaking Tobacco*, or *wearing a Periwig* be lawful or no.

16. In Affairs of *greater Importance*, and which may have a long and lasting, and extensive Influence on our future Conduct or Happiness, we should not take up with *Probabilities*, if *Certainty* may be attain'd. Where there is any Doubt on the Mind, in such Cases we should call in the Assistance of all manner of Circumstances, Reasons, Motives, Consequences on all Sides: We must wait longer and with earnest Request seek human and divine Advice before we fully determine our Judgment and our Practice, according to the old *Roman* Sentence, *Quod statuendum est semel, deliberandum est diu.* We should be long in considering what we must determine once for all.

Sect. IV.

Principles and Rules of Judgment in Matters of human Prudence.

THE great Design of *Prudence*, as distinct from *Morality* and *Religion*, is to determine and manage every Affair with Decency, and to the best Advantage.

That is *decent*, which is agreeable to our State, Condition, or Circumstances, whether it be in Behaviour, Discourse, or Action.

That

That is *advantageous* which attains the moſt and beſt Purpoſes, and avoids the moſt and greateſt Inconveniences.

As there is infinite Variety in the *Circumſtances* of *Perſons*, *Things*, *Actions*, *Times* and *Places*, ſo we muſt be furniſh'd with ſuch *general Rules* as are accommodable to all this Variety by a wiſe Judgment and Diſcretion: For what is an Act of *conſummate Prudence* in ſome *Times*, *Places* and *Circumſtances*, would be *conſummate Folly* in others. Now theſe *Rules* may be rang'd in the following manner.

1. Our Regard to Perſons or Things ſhould be govern'd by the *Degree of Concernment* we have with them, the *Relation* we have to them, or the *Expectation* we have from them. Theſe ſhould be the Meaſures by which we ſhould proportion our Diligence and Application in any thing that relates to them.

2. We ſhould always conſider whether the Thing we purſue be *attainable*; whether it be *worthy our Purſuit*; whether it be worthy the *Degree of Purſuit*; whether it be worthy of the *Means* uſed in order to attain it. This *Rule* is neceſſary both in Matters of *Knowledge*, and Matters of *Practice*.

3. When the *Advantages* and *Diſadvantages*, *Conveniencies* and *Inconveniencies* of any Action are balanc'd together, we muſt finally determine on that Side which has the ſuperior Weight; and the ſooner in things which are neceſſarily and ſpeedily to be done or determin'd.

4. If *Advantages* and *Diſadvantages* in their own Nature are equal, then thoſe which are moſt *certain* or *likely as to the Event* ſhould turn the Scale of our Judgment, and determine our Practice.

5. Where

5. Where the *Improbabilities* of Success or Advantage are greater than the *Probabilities*, it is not Prudence to act or venture. It is proper to enquire whether this be not the Case in almost all *Lotteries*; for they that hold Stakes will certainly secure Part to themselves; and only the Remainder being divided into Prizes must render the *Improbability of Gain* to each Adventurer greater than the *Probability*.

6. We should not despise or neglect any *real Advantage*, and abandon the Pursuit of it, tho' we cannot attain all the Advantages that we desire. This would be to act like *Children*, who are fond of something which strikes their Fancy most, and sullen and regardless of every thing else, if they are not humour'd in that Fancy.

7. Tho' a *general Knowledge* of Things be useful in Science and in human Life, yet we should content our selves with a more superficial Knowledge of those things which have the least Relation to our chief End and Design.

8. This Rule holds good also in *Matters of Business* and *Practice*, as well as in *Matters of Knowledge*; and therefore *we should not grasp at every thing, lest in the end we attain nothing*. Persons that either by an Inconstancy of Temper, or by a vain Ambition, will pursue every sort of Art and Science, Study and Business, seldom grow excellent in any one of them: And *Projectors* who form twenty Schemes seldom use sufficient Application to finish one of them, or make it turn to good Account.

9. Take heed of delaying and trifling amongst the *Means* instead of reaching at the *End*. Take heed of wasting a Life in *mere speculative* Studies, which is call'd to *Action* and *Employment*: Dwell not too long in *philosophical*, *mathematical*, or *grammatical*

grammatical Parts of Learning, when your chief Design is *Law*, *Physick*, or *Divinity*. Don't spend the Day in gathering Flowers by the Way Side, lest Night come upon you before you arrive at your Journey's End, and then you will not reach it.

10. Where the *Case and Circumstances of wise and good Men* resemble our *own Case and Circumstances*, we may borrow a great deal of Instruction toward our prudent Conduct from their *Example*, as well as in all Cases we may learn much from their *Conversation* and *Advice*.

11. After all other *Rules* remember this, that *mere Speculation* in Matters of *human Prudence* can never be a perfect Director without *Experience* and *Observation*. We may be content therefore in our younger Years to commit some unavoidable Mistakes in Point of Prudence, and we shall see Mistakes enough in the Conduct of others, both which ought to be treasur'd up amongst our useful *Observations*, in order to teach us better Judgment for Time to come. Sometimes the *Mistakes*, *Imprudences* and *Follies*, which our selves or others have been guilty of, give us brighter and more effectual Lessons of *Prudence*, than the wisest *Counsels*, and the fairest *Examples* could ever have done.

Sect. V.

Principles and Rules of Judgment in Matters of human Testimony.

THE Evidence of *human Testimony* is not so proper to lead us into the Knowledge of the *Essence* and *inward Nature* of Things, as to acquaint us with the *Existence* of Things, and to inform

inform us of *Matters of Fact* both past and present. And tho' there be a great deal of Fallibility in the Testimony of Men, yet there are some Things we may be almost as certain of, as that *the Sun shines*, or that *five Twenties make a Hundred*. Who is there at *London* that knows any thing of the World, but believes there is such a City as *Paris* in *France*; that *the Pope dwells at* Rome; *that* Julius Cæsar *was an Emperor*, or that Luther *had a great Hand in the Reformation?*

If we observe the following Rules, we may arrive at such a *Certainty* in many Things of human Testimony, as that it is *morally* impossible we should be deceived, *i. e.* we may obtain a *moral Certainty*.

1. Let us consider whether the Thing reported be in itself *possible*; if not, it can never be *credible*, whosoever relates it.

2. Consider farther whether it be *probable*, whether there are any *concurring Circumstances* to prove it, beside the mere Testimony of the Person that relates it. I confess if these last Conditions are wanting, the thing may be true, but then it ought to have the stronger Testimony to support it.

3. Consider whether the Person who relates it be *capable of knowing the Truth:* Whether he be a *skilful* Judge in such Matters, if it be a Business of Art, or a nice Appearance in Nature, or some curious Experiment in Philosophy. But if it be a mere Occurrence in Life, a plain, sensible Matter of Fact, it is enough to enquire whether he who relates it were an *Eye* or *Ear-Witness*, or whether he himself had it only by *Hearsay*, or can trace it up to the Original.

4. Consider whether the Narrator be *honest* and *faithful*, as well as skilful: Whether he hath no *Bias* upon his Mind, no *peculiar Gain* or *Profit* by believing or reporting it, no *Interest* or *Principle* which might warp his own Belief aside from Truth, or which might tempt him to prevaricate, to speak falsly, or to give a Representation a little different from the naked Truth of Things. In short, whether there be no *Occasion of Suspicion* concerning his Report.

5. Consider whether *several Persons agree* together in the Report of this Matter; and if so, then whether these Persons who join'd together in their Testimony might not be suppos'd to *combine together in a Falshood.* Whether they are Persons of *sufficient Skill*, *Probity* and *Credit.* It might be also enquired whether they are of different Nations, Sects, Parties, Opinions, or Interests. For the more divided they are in all these, the more likely is their Report to be true, if they agree together in their Account of the same Thing; and especially if they persist in it without wavering.

6. Consider farther, whether the Report were *capable of being easily refuted at first* if it had not been true; if so, this confirms the Testimony.

7. Enquire yet again, whether there hath been a *constant*, *uniform Tradition* and *Belief* of this Matter from the very first Age or Time when the Thing was transacted, without any reasonable Doubts or Contradictions. Or,

8. If any Part of it hath been doubted by any considerable Persons, whether it has been *searched out and afterwards confirmed*, by having all the Scruples and Doubts removed. In either of these Cases the Testimony becomes more firm and credible.

9. En-

9. Enquire on the other Hand, whether there are any *considerable Objections remaining* against the Belief of that Proposition so attested. Whether there be any thing very *improbable* in the thing it self. Whether any *concurrent Circumstances* seem to *oppose* it. Whether any Person or Persons give a *positive and plain Testimony against it*. Whether they are *equally skilful, and equally faithful* as those who assert it. Whether they be as many or more in Number, and whether they might have any secret Bias or Influence on them to contradict it.

10. Sometimes the *entire Silence of a Thing* may have something of Weight toward the Decision of a doubtful Point of History, or a Matter of human Faith, (*viz.*) where the Fact is pretended to be publick, if the Persons who are silent about it were skilful to observe, and could not but know such an Occurrence; if they were engaged by Principle or by Interest to have declared it; if they had fair Opportunity to speak of it: And these Things may tend to make a Matter suspicious, if it be not very well attested by positive Proof.

11. Remember that in some Reports there are *more Marks of Falshood than of Truth*, and in others there are *more Marks of Truth than of Falshood*. By a Comparison of all these things together, and putting every Argument on one Side and the other into the Balance, we must form as good a Judgment as we can which Side preponderates; and give a strong or a feeble Assent or Dissent, or with-hold our Judgment entirely, according to *greater or lesser Evidence*, according to more plain or dubious *Marks of Truth or Falshood*.

12. Obſerve that in Matters of human Teſtimony, there is oftentimes a *great Mixture of Truth with Falſhood* in the Report itſelf: Some Parts of the Story may be perfectly true, and ſome utterly falſe; and ſome may have ſuch a blended Confuſion of Circumſtances which are a little warpt aſide from the Truth, and miſrepreſented, that there is need of good Skill and Accuracy to form a Judgment concerning them, and determine which Part is true, and which is falſe. The *whole* Report is not to be believed, becauſe ſome Parts are *indubitably true*, nor the *whole* to be rejected, becauſe ſome Parts are as *evident Falſhoods*.

We may draw two remarkable *Obſervations* from this *Section*.

Obſerv. I. How certain is the Truth of the *Chriſtian Religion*, and particularly of the *Reſurrection* of *Chriſt*, which is a Matter of Fact on which *Chriſtianity* is built! We have almoſt all the concurrent Evidences that can be derived from *human Teſtimony* joining to confirm this glorious Truth. The Fact is not impoſſible; concurrent Circumſtances caſt a favourable Aſpect on it; it was foretold by one who wrought Miracles, and therefore not unlikely, nor unexpected: The Apoſtles and firſt Diſciples were Eye and Ear-Witneſſes, for they converſed with their riſen Lord; they were the moſt plain, honeſt Men in themſelves; the Temptations of worldly Intereſts did rather diſcourage their Belief and Report of it: They all agree in this Matter, tho' they were Men of different Characters; *Phariſees* and *Fiſhermen*, and *Publicans*, Men of *Judea* and *Galilee*, and perhaps ſome *Heathens*, who were early converted: The Thing might eaſily have been diſproved if it were falſe; it hath been conveyed by

constant Tradition and Writing down to our Times; those who at first doubted were afterwards convinced by certain Proofs; nor have any pretended to give any Proof of the contrary, but merely denied the Fact with Impudence in Opposition to all these Evidences.

Observ. II. How weak is the Faith which is due to a Multitude of things in antient human History! For tho' many of these *Criteria*, or Marks of Credibility are found plainly in the more *general and publick Facts*, yet as to a Multitude of *particular Facts and Circumstances*, how deficient are they in such Evidence as should demand our Assent! Perhaps there is nothing that ever was done in all past Ages, and which was not a publick Fact, so well attested as the Resurrection of Christ.

Sect. VI.

Principles and Rules of Judgment in Matters of divine Testimony.

As *human Testimony* acquaints us with *Matters* of *Fact*, both *past* and *present*, which lye beyond the Reach of our own personal Notice; so *divine Testimony* is suited to inform us both of the *Nature* of *Things*, as well as *Matters* of *Fact*, and of Things *future*, as well as *present* or *past*.

Whatsoever is dictated to us by God himself, or by Men who are divinely inspired, must be believed with full Assurance. *Reason* demands us to believe whatsoever *divine Revelation* dictates: For God is perfectly *wise*, and cannot be deceived; he is *faithful* and *good*, and will not deceive his Creatures: And when *Reason* has found out the certain Marks or Credentials of *divine Testimony* to

belong to any Propoſition, there remains then no farther Enquiry to be made, but only to find out the *true Senſe and Meaning* of that which God has revealed, for *Reaſon* it ſelf demands the Belief of it.

Now *divine Teſtimony* or *Revelation* requires theſe following *Credentials.*

1. That the Propoſitions or Doctrines revealed be not *inconſiſtent with Reaſon*; for intelligent Creatures can never be bound to believe real Inconſiſtencies. Therefore we are ſure the Popiſh Doctrine of *Tranſubſtantiation* is not a Matter of *divine Revelation*, becauſe it is contrary to all our *Senſes* and our *Reaſon*, even in their proper Exerciſes.

God can dictate nothing but what is worthy of himſelf, and agreeable to his own Nature and divine Perfections. Now many of theſe Perfections are diſcoverable by the Light of *Reaſon*, and whatſoever is inconſiſtent with theſe Perfections, cannot be a *divine Revelation.*

But let it be noted that in *Matters of Practice toward our Fellow-Creatures*, God may command us to act in a Manner contrary to what Reaſon would direct antecedent to that Command. So *Abraham* was commanded to *offer up his Son a Sacrifice:* The *Iſraelites* were ordered to borrow of the *Egyptians* without paying them, and to plunder and ſlay the Inhabitants of *Canaan:* Becauſe God has a ſovereign Right to all Things, and can with Equity diſpoſſeſs his Creatures of Life, and every Thing which he has given them, and eſpecially ſuch ſinful Creatures as Mankind; and he can appoint whom he pleaſes to be the Inſtruments of this juſt Diſpoſſeſſion or Deprivation. So that theſe divine Commands are not really *inconſiſtent with right Reaſon*; for whatſoever

is

is so cannot be believed where that *Inconsistency* appears.

2. Upon the same Account the *whole Doctrine of Revelation* must be *consistent with itself*; every Part of it must be consistent with each other: And tho' in Points of *Practice* latter Revelation may repeal or cancel former divine Laws, yet in Matters of *Belief* no latter Revelation can be inconsistent with what has been heretofore revealed.

3. Divine Revelation must be confirm'd by some *divine and supernatural Appearances*, some extraordinary *Signs* or *Tokens*, *Visions*, *Voices*, or *Miracles* wrought, or *Prophecies* fulfill'd. There must be some Demonstrations of the Presence and Power of God, superior to all the Powers of Nature, or the settled Connection which God as Creator has establish'd among his Creatures in this visible World.

4. If there are any such extraordinary and wonderful Appearances and Operations brought to contest with, or to oppose *divine Revelation*, there must and always will be such a *Superiority* on the Side of that *Revelation* which is truly *divine*, as to manifest that God is there. This was the Case when the *Egyptian Sorcerers* contended with *Moses*. But the Wonders which *Moses* wrought did so far transcend the Power of the *Magicians*, as made them confess, *It was the Finger of God.*

5. These divine Appearances or Attestations to Revelation must be either *known to ourselves*, by our own personal Observation of them, or they must be *sufficiently attested by others*, according to the *Principles* and *Rules* by which Matters of *human Faith* are to be judged in the foregoing Section.

Some of thoſe who liv'd in the Nations and Ages where Miracles were wrought, were Eye and Ear-Witneſſes of the Truth and Divinity of the Revelation; but we who live in theſe diſtant Ages, muſt have them deriv'd down to us by juſt and inconteſtable Hiſtory and Tradition. We alſo even in theſe diſtant Times may ſee the Accompliſhments of ſome *ancient Predictions*, and thereby obtain that Advantage toward the Confirmation of our Faith in *divine Revelation* beyond what thoſe Perſons enjoy'd who liv'd when the *Predictions* were pronounc'd.

6. There is another very conſiderable Confirmation of *divine Teſtimony*; and that is, when the Doctrines themſelves either on the Publication or the Belief of them produce ſupernatural Effects. Such were the *miraculous Powers* which were communicated to Believers in the firſt Ages of Chriſtianity, the *Converſion of Jews or Gentiles*, the amazing *Succeſs of the Goſpel* of Chriſt without human Aid, and in Oppoſition to a thouſand Impediments, its Power in changing the Hearts and Lives of ignorant and vicious *Heathens*, and wicked and profane Creatures in all Nations, and filling them with a Spirit of Virtue, Piety and Goodneſs. Whereſoever Perſons have found this Effect in their own Hearts, wrought by a Belief of the Goſpel of *Chriſt*, they have a Witneſs in themſelves of the Truth of it, and abundant Reaſon to believe it *divine*.

Of the Difference between *Reaſon* and *Revelation*, and in what Senſe the latter is ſuperior, ſee more in *Chap.* II. *Sect.* 9. and *Chap.* IV. *Direct.* 6.

SECT.

Sect. VII.

Principles and Rules of judging, concerning Things past, present, and to come, by the mere Use of Reason.

THough we attain the greatest Assurance of Things *past* and *future* by *divine Faith*, and learn many Matters of Fact, both *past* and *present*, by *human Faith*, yet *Reason* also may in a good Degree assist us to judge of Matters of Fact both *past*, *present*, *and to come*, by the following Principles.

1. There is a *System* of Beings round about us, of which we *ourselves* are a Part, which we call the *World*; and in this World there is a Course of Nature, or a settl'd Order of *Causes*, *Effects*, *Antecedents*, *Concomitants*, *Consequents*, *&c.* from which the Author of Nature doth not vary but upon very important Occasions.

2. Where *Antecedents*, *Concomitants* and *Consequents*, *Causes* and *Effects*, *Signs* and *Things signified*, *Subjects* and *Adjuncts* are necessarily connected with each other, we may infer the Causes from the Effects, and Effects from Causes, the Antecedents from the Consequents, as well as Consequents from Antecedents, *&c.* and thereby be pretty certain of many Things both *past*, *present*, and *to come*. It is by this Principle that *Astronomers* can tell *what Day and Hour the Sun and Moon were eclipsed five hundred Years ago*, and predict all *future Eclipses* as long as the World shall stand. They can tell precisely *at what Minute the Sun rises or sets this Day at* Pequin *in* China, *or what Altitude the Dog-star had at Midnight or Midnoon in* Rome, *on the Day when* Julius Cæsar *was slain.*

Gardiners

Gardiners upon the same Principle can foretel the *Months when every Plant will be in Bloom*, and the Plowman knows the *Weeks of Harvest:* We are sure *if there be a Chicken*, there *was an Egg:* If *there be a Rainbow*, we are certain *it rains not far off:* If we behold a *Tree growing on the Earth*, we know it *has naturally a Root under Ground.*

3. Where there is such a *necessary* Connection between *Causes* and *Effects*, *Antecedents* and *Consequents*, *Signs* and *Things signified*, we know also that *like* Causes will have *like* Effects, and *proportionable* Causes will have *proportionable* Effects, *contrary* Causes will have *contrary* Effects; and observing Men may form many Judgments by the Rules of Similitude and Proportion, where the *Causes*, *Effects*, *&c.* are not entirely the same.

4. Where there is but a *probable* and *uncertain* Connection between *Antecedents*, *Concomitants* and *Consequents*, we can give but a *Conjecture*, or a *probable* Determination. If the *Clouds gather*, or the *Weather-glass sinks*, we suppose *it will rain:* If a Man *spit Blood frequently with coughing*, we suppose his *Lungs are hurt:* If very *dangerous Symptoms* appear, we expect his *Death.*

5. Where Causes operate *freely* with a *Liberty of Indifference to this or the contrary*, there we cannot certainly know what the Effects will be: For it seems to be *contingent*, and the certain Knowledge of it belongs only to God. This is the Case in the greatest Part of human Actions.

6. Yet wise Men by a just Observation of human Nature will give very probable Conjectures in this Matter also concerning Things *past*, or Things *future*, because human Nature in all Ages and Nations has such a Conformity to itself. By a Knowledge of the Tempers of Men and their present Circumstances, we may be able to give a happy

happy Guess what their Conduct will be, and what will be the Event, by an Observation of the like Cases in former Times. This made the Emperor *Marcus Antoninus* to say, "*By looking back into* "*History, and considering the Fate and Revolutions* "*of Governments, you will be able to form a Guess,* "*and almost prophesy upon the future. For Things* "*past, present, and to come, are strangely uniform,* "*and of a Colour; and are commonly cast in the* "*same Mould. So that upon the Matter, forty* "*Years of human Life may serve for a Sample of* "*ten thousand.*" Collier's Antoninus, Book VII. Sect. 50.

7. There are also some other Principles of judging concerning the past Actions of Men in former Ages, beside *Books*, *Histories*, and *Traditions*, which are the Mediums of conveying human Testimony; as we may infer the *Skill* and *Magnificence of the Antients* by some Fragments of their *Statues*, and *Ruins of their Buildings*. We know what *Roman Legions came into Great Britain* by Numbers of *Bricks* dug out of the Earth in some Parts of the Island, with the Marks of some *particular Legion* upon them, which must have been employ'd there in Brick-making. We rectify some Mistakes in History by *Statues*, *Coins*, *old Altars*, *Utensils of War*, &c. We confirm or disprove some pretended Traditions and historical Writings, by *Medals*, *Images*, *Pictures*, *Urns*, *&c.*

Thus I have gone thro' all those *particular Objects of our Judgment* which I first propos'd, and have laid down *Principles* and *Rules* by which we may safely conduct ourselves therein. There is a Variety of other Objects concerning which we are occasionally call'd to pass a Judgment, (*viz.*) The *Characters of Persons*, the *Value and Worth* of

of Things, the *Senſe and Meaning of particular Writers*, *Matters of Wit*, *Oratory*, *Poeſy*, *Matters of Equity in judicial Courts*, *Matters of Traffick and Commerce betwixt Man and Man*, which would be endleſs to enumerate. But if the *general* and *ſpecial Rules of Judgment* which have been mention'd in theſe two laſt Chapters are treaſur'd up in the Mind, and wrought into the very Temper of our Souls in our younger Years, they will lay a Foundation for juſt and regular Judgment concerning a thouſand ſpecial Occurrences in the *religious*, *civil* and *learned* Life.

THE

THE THIRD PART OF LOGICK.

Of Reaſoning and Syllogiſm.

AS the firſt Work of the Mind is *Perception*, whereby our *Ideas* are fram'd, and the ſecond is *Judgment*, which joins or disjoins our Ideas, and forms a *Propoſition*, ſo the third Operation of the Mind is *Reaſoning*, which joins ſeveral Propoſitions together, and makes a *Syllogiſm*, that is, an *Argument whereby we are wont to infer ſomething that is leſs known, from Truths which are more evident.*

In treating of this Subject, let us conſider more particularly

1. *The Nature of a* Syllogiſm, and *the Parts of which it is compos'd.*

2. *The ſeveral kinds of* Syllogiſms, *with particular Rules relating to them.*

3. *The*

3. *The Doctrine of* Sophiſms, *or falſe Reaſoning, together with the Means of avoiding them, and the Manner of ſolving or anſwering them.*

4. *Some general Rules to direct our* Reaſoning.

CHAP. I.

Of the Nature of a Syllogiſm, *and the Parts of which it is compos'd.*

IF the mere *Perception* and *Compariſon* of two Ideas would always ſhew us whether they agree or diſagree; then all rational Propoſitions would be *Matters* of *Intelligence*, or *firſt Principles*, and there would be no Uſe of *Reaſoning*, or drawing any Conſequences. It is the Narrowneſs of the human Mind which introduces the Neceſſity of *Reaſoning*. When we are unable to judge of the Truth or Falſhood of a Propoſition in an *immediate* Manner, by the mere Contemplation of its Subject and Predicate, we are then conſtrain'd to uſe a *Medium*, and to compare each of them with ſome *third Idea*, that by ſeeing how far they agree or diſagree with it, we may be able to judge how far they agree or diſagree among themſelves: As, if there are two Lines A and B, and I know not whether they are *equal* or no, I take a third Line C, or an *Inch*, and apply it to each of them; if it agree with them both, then I infer that *A* and *B are equal*; but if it agree with one and not with the other, then I conclude *A* and *B are unequal:* If it agree with neither of them, there can be no Compariſon.

So

So if the Question be *whether God must be worshipped*, we seek a *third Idea*, suppose the Idea of a Creator, and say,

Our Creator must be worshipped.
God is our Creator.
Therefore God must be worshipped.

The Comparison of this *third Idea*, with the two distinct Parts of the Question, usually requires two Propositions, which are call'd the *Premisses:* The third Proposition which is drawn from them is the *Conclusion*, wherein the *Question* itself is answered, and the Subject and Predicate joined either in the *Negative* or the *Affirmative*.

The *Foundation of all Affirmative Conclusions* is laid in this general Truth, that so far as two propos'd Ideas agree to any third Idea, they agree also among themselves. The Character of *Creator* agrees to *God*, and *Worship* agrees to a *Creator*, therefore *Worship* agrees to *God*.

The *Foundation of all negative Conclusions* is this, that where one of the two proposed Ideas agrees with the third Idea, and the other disagrees with it, they must needs disagree so far also with one another; as, if no *Sinners are happy*, and if *Angels are happy*, then *Angels are not Sinners*.

Thus it appears what is the strict and just Notion of a *Syllogism:* It is a Sentence or Argument made up of three Propositions so disposed, as that the last is necessarily infer'd from those which go before, as in the Instances which have been just mentioned.

In the *Constitution of a Syllogism* two Things may be considered *(viz.)* the *Matter* and the *Form* of it.

The Matter of which a Syllogism is made up, is *three Propositions*; and these three Propositions are made up of *three Ideas* or *Terms* variously join-

ed. The *three Terms* are call'd the *remote Matter* of a Syllogiſm; and the *three Propoſitions*, the *proxime* or *immediate Matter* of it.

The three Terms are nam'd the *Major*, the *Minor*, and the *Middle*.

The *Predicate* of the Concluſion is call'd the *major Term*, becauſe it is generally of larger Extenſion than the *minor Term*, or the *Subject*. The *major* and *minor Terms* are call'd the *Extremes*.

The *middle Term* is the third Idea invented and diſpos'd in two Propoſitions in ſuch a manner as to ſhew the Connection between the *major* and *minor Term* in the Concluſion; for which Reaſon the *middle Term* itſelf is ſometimes call'd the *Argument*.

That Propoſition which contains the Predicate of the Concluſion, connected with the middle Term, is uſually call'd the *major Propoſition*, whereas the *minor Propoſition* connects the middle Term with the Subject of the Concluſion, and is ſometimes call'd the *Aſſumption*.

Note, This exact Diſtinction of the ſeveral Parts of a Syllogiſm, and of the major and minor Terms connected with the middle Term, in the major and minor Propoſitions, does chiefly belong to *ſimple* or *categorical Syllogiſms*, of which we ſhall ſpeak in the next Chapter, tho' all Syllogiſms whatſoever have ſomething analogical to it.

Note farther, that the *major* Propoſition is generally plac'd firſt, and the *minor* ſecond, and the *Concluſion* in the laſt Place, where the Syllogiſm is regularly compos'd and repreſented.

The *Form of a Syllogiſm* is the framing and diſpoſing of the Premiſſes according to Art, or juſt Principles of Reaſoning, and the regular Inference of the Concluſion from them.

The

The *Act of Reasoning* or inferring one thing from another, is generally expresst and known by the Particle *Therefore*, when the Argument is formed according to the Rules of Art; tho' in common Discourse or Writing, such *causal* Particles as *For*, *Because*, manifest the Act of Reasoning as well as the *illative* Particles *Then* and *Therefore:* And whereſoever any of theſe Words are uſed, there is a perfect Syllogiſm expreſt or imply'd, tho' perhaps the three Propoſitions do not appear, or are not placed in regular Form.

CHAP. II.

Of the various Kinds of Syllogiſms, with particular Rules relating to them.

SYllogiſms are divided into various Kinds, either according to the *Queſtion* which is proved by them, according to the *Nature* and *Compoſition* of them, or according to the *middle Term*, which is uſed to prove the Queſtion.

SECT. I.

Of univerſal and particular Syllogiſms, both negative and affirmative.

ACcording to the *Queſtion* which is to be proved, ſo Syllogiſms are divided into *univerſal Affirmative*, *univerſal Negative*, *particular Affirmative*, and *particular Negative*. This is often called a Diviſion of Syllogiſms drawn from the *Concluſion*; for ſo many Sorts of Concluſions there

may be which are marked with the Letters A, E, I, O.

In an *univerſal affirmative Syllogiſm*, one Idea is proved univerſally to agree with another, and may be univerſally affirmed of it, as *every Sin deſerves Death*, *every unlawful Wiſh is a Sin*; *therefore every unlawful Wiſh deſerves Death.*

In an *univerſal negative Syllogiſm*, one Idea is proved to diſagree with another Idea univerſally, and may be thus denied of it; as, *no Injuſtice can be pleaſing to God*; *all Perſecution for the Sake of Conſcience is Injuſtice*; therefore *no Perſecution for Conſcience Sake can be pleaſing to God.*

Particular affirmative, and *particular negative Syllogiſms* may be eaſily underſtood by what is ſaid of *Univerſals*, and there will be ſufficient Examples given of all theſe in the next Section.

The *general Principle* upon which theſe univerſal and particular Syllogiſms are founded is this; whatſoever is affirmed or denied univerſally of any Idea, may be affirmed or denied of all the particular Kinds or Beings, which are contained in the Extenſion of that univerſal Idea. So the *Deſert of Death* is affirmed univerſally of *Sin*, and an *unlawful Wiſh* is one particular Kind of *Sin*, which is contained in the univerſal Idea of *Sin*, therefore the *Deſert of Death* may be affirmed concerning an *unlawful Wiſh*. And ſo of the reſt.

Note, In the Doctrine of Syllogiſms, a *ſingular* and an *indefinite* Propoſition are ranked among *Univerſals*, as was before obſerved in the Doctrine of Propoſitions.

SECT.

Sect. II.

Of plain, simple Syllogisms, and their Rules.

THE next Division of Syllogisms is into *single* and *compound*. This is drawn from the *Nature* and *Composition* of them.

Single Syllogisms are made up of three Propositions: *Compound* Syllogisms contain more than three Propositions, and may be formed into two or more Syllogisms.

Single Syllogisms, for Distinction Sake, may be divided into * *Simple*, *Complex* and *Conjunctive*.

Those are properly called *simple* or *categorical Syllogisms*, which are made up of three *plain*, *single*, or *categorical Propositions*, wherein the middle Term is evidently and regularly joined with one Part of the Question in the major Proposition, and with the other in the minor, whence there follows a plain, single Conclusion; as, *every human Virtue is to be sought with Diligence*; *Prudence is a human Virtue*; *therefore Prudence is to be sought diligently*.

Note; Tho' the Terms of Propositions may be *complex*; yet where the Composition of the whole Argument is thus *plain*, *simple* and *regular*, it is properly called a *simple Syllogism*, since the *Complection* does not belong to the syllogistic Form of it.

* As Ideas and Propositions are divided into *single* and *compound*, and *single* are subdivided into *simple* and *complex*; so there are the same Divisions and Subdivisions apply'd to Syllogisms.

Simple Syllogiſms have ſeveral *Rules* belonging to them, which being obſerved, will generally ſecure us from falſe Inferences: But theſe *Rules* being founded on four *general Axioms*, it is neceſſary to mention theſe *Axioms* beforehand, for the Uſe of thoſe who will enter into the ſpeculative Reaſon of all theſe Rules.

Axiom 1. Particular Propoſitions are contained in Univerſals, and may be infer'd from them; but Univerſals are not contained in Particulars, nor can be infer'd from them.

Axiom 2. In all univerſal Propoſitions, the Subject is univerſal: In all particular Propoſitions, the Subject is particular.

Axiom 3. In all affirmative Propoſitions, the Predicate has no greater Extenſion than the Subject; for its Extenſion is reſtrained by the Subject, and therefore it is always to be eſteemed as a particular Idea. It is by mere Accident, if it ever be taken univerſally, and cannot happen but in ſuch univerſal or ſingular Propoſitions as are *reciprocal*.

Axiom 4. The Predicate of a negative Propoſition is always taken univerſally, for in its whole Extenſion it is denied of the Subject. If we ſay *no Stone is vegetable*, we deny all ſorts of *Vegetation* concerning *Stones*.

The Rules of *ſimple, regular* Syllogiſms are theſe.

Rule I. *The middle Term muſt not be taken twice particularly, but once at leaſt univerſally.* For if the middle Term be taken for two different Parts or Kinds of the ſame univerſal Idea, then the Subject of the Concluſion is compared with one of

these Parts, and the Predicate with another Part, and this will never shew whether that Subject and Predicate agree or disagree: There will then be *four distinct Terms* in the Syllogism, and the two Parts of the Question will not be compared with the *same third Idea*; as if I say, *some Men are pious*, and *some Men are Robbers*, I can never infer that *some Robbers are pious*, for the middle Term *Men* being taken twice particularly, it is not the *same Men* who are spoken of in the major and minor Propositions.

Rule II. *The Terms in the Conclusion must never be taken more universally than they are in the Premisses.* The Reason is derived from the first Axiom, that *Generals can never be inferred from Particulars.*

Rule III. *A negative Conclusion cannot be proved by two affirmative Premisses.* For when the two Terms of the Conclusion are united or agree to the middle Term, it does not follow by any Means that they disagree with one another.

Rule IV. *If one of the Premisses be negative, the Conclusion must be negative.* For if the middle Term be denied of either Part of the Conclusion, it may shew that the Terms of the Conclusion disagree, but it can never shew that they agree.

Rule V. *If either of the Premisses be particular, the Conclusion must be particular.* This may be proved for the most part from the first Axiom.

These two last *Rules* are sometimes united in this single Sentence, *The Conclusion always follows the weaker Part of the Premisses.* Now Negatives

and Particulars are counted inferior to Affirmatives and Univerſals.

Rule VI. *From two negative Premiſſes nothing can be concluded.* For they ſeparate the middle Term both from the Subject and Predicate of the Concluſion, and when two Ideas diſagree to a third, we cannot infer that they either agree or diſagree with each other.

Yet where the *Negation* is a Part of the *middle Term*, the two Premiſſes may look like *Negatives* according to the Words, but one of them is *affirmative* in Senſe; as, *What has no Thought cannot reaſon*; but *a Worm has no Thought*; therefore *a Worm cannot reaſon.* The minor Propoſition does really affirm the middle Term concerning the Subject (*viz.*) *a Worm is what has no Thought*, and thus it is properly in this Syllogiſm an *affirmative* Propoſition.

Rule VII. *From two particular Premiſſes, nothing can be concluded.* This Rule depends chiefly on the firſt Axiom.

A more laborious and accurate Proof of theſe Rules, and the Derivation of every Part of them in all poſſible Caſes, from the foregoing Axioms, require ſo much Time, and are of ſo little Importance to aſſiſt the right Uſe of Reaſon, that it is needleſs to inſiſt longer upon them here. See all this done ingeniouſly in the *Logick* call'd, the *Art of Thinking*, Part iii. Chap. iii. &c.

Sect. III.

Of the Moods and Figures of simple Syllogisms.

Simple Syllogisms are adorn'd and surrounded in the common Books of Logick with a Variety of Inventions about *Moods* and *Figures*, wherein by the artificial Contexture of the Letters A, E, I, and O, Men have endeavour'd to transform *Logick*, or the *Art of Reasoning*, into a sort of *Mechanism*, and to teach Boys to syllogize, or frame Arguments and refute them, without any real inward Knowledge of the Question. This is almost in the same Manner as School-boys have been taught perhaps in their trifling Years to compose *Latin Verses*; *i. e.* by certain Tables and Squares, with a Variety of Letters in them, wherein by counting every sixth, seventh, or eighth Letter, certain *Latin* Words should be fram'd in the Form of *Hexameters* or *Pentameters*; and this may be done by those who know nothing of *Latin* or of *Verses*.

I confess some of these logical Subtilties have much more Use than those versifying Tables, and there is much Ingenuity discover'd in determining the precise Number of Syllogisms that may be form'd in every *Figure*, and giving the Reasons of them; yet the Light of Nature, a good Judgment, and due Consideration of Things tend more to true Reasoning than all the Trappings of *Moods* and *Figures*.

But lest this Book be charged with too great Defects and Imperfections, it may be proper to give short Hints of that which some *Logicians* have spent so much Time and Paper upon.

All the possible Combinations of three of the Letters A, E, I, O, to make three Propositions amount to *sixty four*; but fifty four of them are excluded from forming true Syllogisms by the *seven Rules* in the foregoing Section: The remaining *Ten* are variously diversified by *Figures* and *Moods* into *fourteen* Syllogisms.

The *Figure* of a *Syllogism* is the proper Disposition of the middle Term with the Parts of the Question.

A *Mood* is the regular Determination of Propositions according to their Quantity and Quality, *i. e.* their universal or particular Affirmation or Negation; which are signified by certain artificial Words wherein the Consonants are neglected, and these four Vowels, A, E, I, O, are only regarded.

There are generally counted *three Figures.*

In the *first* of them the middle Term is the Subject of the major Proposition, and the Predicate of the minor. This contains four Moods (*viz.*) *Barbara*, *Celarent*, *Darii*, *Ferio.* And it is the Excellency of this Figure that all Sorts of Questions or Conclusions may be prov'd by it, whether A, E, I, or O, *i. e.* universal or particular, affirmative or negative, as,

Bar- Every wicked Man is truly miserable.
ba- All Tyrants are wicked Men;
ra. Therefore all Tyrants are truly miserable.

Ce- He that's always in Fear is not happy;
la- Covetous Men are always in Fear;
rent. Therefore covetous Men are not happy.

Da-

Da- Whatſoever furthers our Salvation is good for us;
ri- Some Afflictions further our Salvation;
i. Therefore ſome Afflictions are good for us.

Fe- Nothing that muſt be repented of is truly deſirable;
ri- Some Pleaſures muſt be repented of;
o. Therefore there are ſome Pleaſures which are not truly deſirable.

In the *ſecond* Figure the middle Term is the Predicate of both the Premiſſes; this contains four Moods (*viz.*) *Ceſare*, *Cameſtres*, *Feſtino*, *Baroco*, and it admits only of negative Concluſions; as,

Ce- No Liar is fit to be believed;
ſa- Every good Chriſtian is fit to be believed;
re. Therefore no good Chriſtian is a Liar.

The Reader may eaſily form Examples of the reſt.

The *third* Figure requires that the middle Term be the Subject of both the Premiſſes. It has ſix Moods (*viz.*) *Darapti*, *Felapton*, *Diſamis*, *Datiſi*, *Bocardo*, *Feriſon:* And it admits only of particular Concluſions; as,

Da- Whoſoever loves God ſhall be ſaved;
rap- All the Lovers of God have their Imperfections;
ti- Therefore ſome who have Imperfections ſhall be ſaved.

I leave the Reader to form Examples of the reſt.

The

The Moods of these three Figures are comprized in four *Latin* Verses.

Barbara, Celarent, Darii, Ferio quoque primæ.
Cesare, Camestres, Festino, Baroco, secundæ.
Tertia *Darapti* sibi vindicat, atque *Felapton,*
Adjungens *Disamis, Datisi, Bocardo, Ferison.*

The *special Rules* of the three Figures are these.

In the *first Figure* the major Proposition must always be universal, and the minor affirmative.

In the *second Figure* also the major must be universal, and one of the Premisses, together with the Conclusion, must be negative.

In the *third Figure* the minor must be affirmative, and the Conclusion always particular.

There is also a *fourth Figure* wherein the middle Term is predicated in the major Proposition, and subjected in the minor: But this is a very indirect and oblique manner of concluding, and is never used in the Sciences, nor in human Life, and therefore I call it useless.——Some Logicians will allow it to be nothing else but a mere Inversion of the first Figure; the Moods of it, (*viz.*) *Baralipton*, or *Barbari, Calentes, Dibatis, Fespamo, Fresison*, are not worthy to be explain'd by one Example.

Sect. IV.

Of Complex Syllogisms.

IT is not the mere Use of *complex Terms* in a Syllogism that gives it this Name, tho' one of the Terms is usually *complex*; but those are properly called *complex Syllogisms*, in which the middle Term is not connected with the whole Subject,

Subject, or the whole Predicate in two diſtinct Propoſitions, but is intermingled and compar'd with them by Parts, or in a more confus'd manner, in different Forms of Speech; as,

The Sun is a ſenſeleſs Being;
The Perſians *worſhipped the Sun*;
Therefore the Perſians *worſhipped a ſenſeleſs Being.*

Here the Predicate of the Concluſion is *worſhipped a ſenſeleſs Being*, part of which is join'd with the middle Term *Sun* in the major Propoſition, and the other Part in the minor.

Tho' this ſort of Argument is confeſs'd to be *entangled*, or *confuſed*, and *irregular*, if examined by the Rules of *ſimple Syllogiſms*; yet there is a great Variety of Arguments uſed in Books of Learning, and in common Life, whoſe Conſequence is ſtrong and evident, and which muſt be rank'd under this Head; as,

I. *Excluſive* Propoſitions will form a complex Argument; as, *pious Men are the only Favourites of Heaven*; *true Chriſtians are Favourites of Heaven*; therefore *true Chriſtians are pious Men.* Or thus, *Hypocrites are not pious Men*; therefore *Hypocrites are no Favourites of Heaven.*

II. *Exceptive* Propoſitions will make ſuch complex Syllogiſms; as, *None but Phyſicians came to the Conſultation*; *the Nurſe is no Phyſician*; therefore *the Nurſe came not to the Conſultation.*

III. Or, *Comparative* Propoſitions; as, *Knowledge is better than Riches*; *Virtue is better than Knowledge*; therefore *Virtue is better than Riches.* Or thus, *a Dove will fly a Mile in a Minute*; *a Swallow*

Swallow flies ſwifter than a Dove; therefore *a Swallow will fly more than a Mile in a Minute.*

IV. Or *Inceptive* and *Deſitive* Propoſitions; as, *the Fogs vaniſh as the Sun ariſes*; *but the Fogs have not yet begun to vaniſh*; therefore *the Sun is not yet riſen.*

V. Or *Modal* Propoſitions; as, *It is neceſſary that a General underſtand the Art of War*; but Caius *does not underſtand the Art of War*; therefore *it is neceſſary* Caius *ſhould not be a General.* Or thus, *A total Eclipſe of the Sun would cauſe Darkneſs at Noon*; *it is poſſible that the Moon at that Time may totally eclipſe the Sun*; therefore *it is poſſible that the Moon may cauſe Darkneſs at Noon.*

Beſide all theſe, there is a great Number of *complex Syllogiſms* which can hardly be reduced under any particular Titles, becauſe the Forms of human Language are ſo exceeding various; as,

Chriſtianity requires us to believe what the Apoſtles wrote; *St.* Paul *is an Apoſtle*; therefore *Chriſtianity requires us to believe what St.* Paul *wrote.*

No human Artiſt can make an Animal; *a Fly or a Worm is an Animal*; therefore *no human Artiſt can make a Fly or a Worm.*

The Father always lived in London; *the Son always liv'd with the Father*; *therefore the Son always liv'd in* London.

The Bloſſom ſoon follows the full Bud; *this Pear-Tree hath many full Buds*; therefore *it will ſhortly have many Bloſſoms.*

One Hailſtone never falls alone; but a *Hailſtone fell juſt now*; therefore *others fell with it.*

Thunder

Thunder seldom comes without Lightning; but *it thunder'd Yesterday*; therefore *probably it lightned also.*

Moses *wrote before the* Trojan *War*; *the first* Greek *Historians wrote after the* Trojan *War*; therefore *the first* Greek *Historians wrote after* Moses *.

Now the Force of all these Arguments is so evident and conclusive, that tho' the Form of the Syllogism be never so irregular, yet we are sure the Inferences are just and true; for the *Premisses*, according to the Reason of Things, do *really contain the Conclusion that is deduc'd from them*, which is a never failing Test of true Syllogisms, as shall be shewn hereafter.

The Truth of most of these *complex Syllogisms* may also be made to appear (if needful) by reducing them either to *regular*, *simple Syllogisms*, or to some of the *conjunctive Syllogisms*, which are described in the next Section. I will give an Instance only in the first, and leave the rest to exercise the Ingenuity of the Reader.

The first Argument may be reduced to a Syllogism in *Barbara* thus,

The Sun is a senseless Being;

What the Persians *worshipped is the Sun*;

Therefore *what the* Persians *worshipped is a senseless Being.* Tho' the conclusive Force of this Argument is evident without this Reduction.

* Perhaps some of these Syllogisms may be reduced to those which I call *Connexive* afterward; but it is of little Moment to what *Species* they belong: for it is not any formal Sett of Rules so much as the Evidence and Force of Reason that must determine the Truth or Falshood of all such Syllogisms.

Sect. V.

Of conjunctive Syllogisms.

THose are called *conjunctive Syllogisms*, wherein one of the Premisses, namely the major, has distinct Parts, which are join'd by a Conjunction, or some such Particle of Speech. Most Times the major or minor, or both, are *explicitly compound Propositions:* And generally the *major* Proposition is made up of two distinct Parts or Propositions in such a manner, as that by the Assertion of one in the *minor*, the other is either asserted or denied in the *Conclusion:* Or by the Denial of one in the *minor*, the other is either asserted or denied in the *Conclusion*. It is hardly possible indeed to fit any short Definition to include all the Kinds of them; but the chief amongst them are the *conditional* Syllogism, the *disjunctive*, the *relative*, and the *connexive*.

I. The *conditional* or *hypothetical* Syllogism is whose major or minor, or both, are *conditional* Propositions; as, *If there be a God, the World is govern'd by Providence*; but *there is a God*; therefore *the World is govern'd by Providence*.

These Syllogisms admit two sorts of true Argumentation, where the major is *conditional*.

1. When the Antecedent is asserted in the minor, that the Consequent may be asserted in the Conclusion; such is the preceding Example. This is called *arguing from the Position of the Antecedent to the Position of the Consequent*.

2. When the Consequent is contradicted in the minor Proposition, that the Antecedent may be contradicted in the Conclusion; as, *If Atheists*

are in the right, then the World exists without a Cause; but *the World does not exist without a Cause*; therefore *Atheists are not in the right.* This is called arguing *from the removing of the Consequent to the removing of the Antecedent.*

To *remove* the Antecedent or Consequent here does not merely signify the *Denial* of it, but the *Contradiction* of it; for the mere *Denial* of it by a *contrary* Proposition will not make a true Syllogism, as appears thus: *If every Creature be reasonable, every Brute is reasonable*; *but no Brute is reasonable*; therefore *no Creature is reasonable.* Whereas if you say in the minor, but *every Brute is not reasonable*, then it would follow truly in the Conclusion, therefore *every Creature is not reasonable.*

When the Antecedent or Consequent are *negative* Propositions, they are remov'd by an Affirmative; as, *If there be no God, then the World does not discover creating Wisdom*; but *the World does discover creating Wisdom*; therefore *there is a God.* In this Instance the Consequent is remov'd or contradicted in the minor, that the Antecedent may be contradicted in the Conclusion. So in this Argument of St. *Paul*, 1 *Cor.* xv. *If the Dead rise not, Christ died in vain*; but Christ *did not die in vain*; therefore *the Dead shall rise.*

There are also two sorts of false Arguing, (*viz.*) (1.) *From the removing of the Antecedent to the removing of the Consequent*; or, (2.) From the *Position of the Consequent to the Position of the Antecedent.* Examples of these are easily fram'd; as,

(1.) *If a Minister were a Prince he must be honoured*; *But a Minister is not a Prince*;

Therefore he must not be honour'd.

(2.) *If*

(2.) *If a Miniſter were a Prince, he muſt be honoured*; *But a Miniſter muſt be honoured*;
Therefore he is a Prince.
Who ſees not the ridiculous Falſhood of both theſe Syllogiſms?

Obſerv. I. If the Subject of the Antecedent and the Conſequent be the ſame, then the *hypothetical* Syllogiſm may be turned into a *categorical* One; as, *If* Cæſar *be a King he muſt be honoured*; *but* Cæſar *is a King*; therefore, *&c.* This may be changed thus, *Every King muſt be honoured*; *but* Cæſar *is a King*; therefore, *&c.*

Obſerv. II. If the *major* Propoſition only be *conditional*, the Concluſion is *categorical:* But if the *minor* or *both* be *conditional*, the Concluſion is alſo *conditional*; as, *The Worſhippers of Images are Idolaters*; *If the* Papiſts *worſhip a Crucifix, they are Worſhippers of an Image*; therefore *if the Papiſts worſhip a Crucifix, they are Idolaters.* But this ſort of Syllogiſms ſhould be avoided as much as poſſible in Diſputation, becauſe they greatly embarraſs a Cauſe: Tho Syllogiſms, whoſe major only is *hypothetical*, are very frequent, and us'd with great Advantage.

II. A *disjunctive Syllogiſm* is when the major Propoſition is disjunctive; as, *The Earth moves in a Circle or an Ellipſis*; but *it does not move in a Circle*; therefore *it moves in an Ellipſis.*

A *disjunctive Syllogiſm* may have many Members or Parts thus; *it is either Spring, Summer, Autumn, or Winter*; but *it is not Spring, Autumn, or Winter*; therefore *it is Summer.*

The true Method of arguing here is *from the Aſſertion of one, to the Denial of the reſt*, or *from the*

the Denial of one or more, to the Assertion of what remains: but the major should be so framed, that the several Parts of it can't be true together, tho' one of them is evidently true.

III. A *relative Syllogism* requires the major Proposition to be relative; as *Where Christ is there shall his Servants be*; but *Christ is in Heaven*; therefore *his Servants shall be there also.* Or, *As is the Captain, so are his Soldiers*; *but the Captain is a Coward*; therefore *his Soldiers are so too.*

Arguments that relate to the Doctrine of Proportion must be referred to this Head; as, *As two are to four, so are three to six*; but *two make the half of four*; therefore *three make the half of six.*

Besides these, there is another sort of Syllogism which is very natural and common, and yet Authors take very little notice of it, call it by an improper Name, and describe it very defectively, and that is,

IV. A *connexive Syllogism.* This some have called *copulative*; but it does by no means require the major to be a *copulative* nor a *compound* Proposition (according to the Definition given of it *Part* II^d, *Chap.* II^d, *Sect.* 6.) but it requires that two or more Ideas be so connected either in the complex Subject or Predicate of the major, that if one of them be affirmed or denied in the minor, common Sense will naturally shew us what will be the Consequence. It would be very tedious and useless to frame particular Rules about them, as will appear by the following Examples, which are very various, and may yet be farther multiplied.

(1.) *Meekneſs and Humility always go together*; Moſes *was a Man of Meekneſs*, therefore Moſes *was alſo humble.* Or we may form this minor, Pharaoh *was no humble Man*; therefore *he was not meek.*

(2.) *No Man can ſerve* God and Mammon; *the covetous Man ſerves* Mammon; therefore *he cannot ſerve* God. Or the minor may run thus, *the true Chriſtian ſerves God*; therefore *he does not ſerve* Mammon.

(3.) *Genius muſt join with Study to make a great Man*; Florino *has Genius but he cannot ſtudy*; therefore Florino *will never be a great Man.* Or thus, Quintus *ſtudies hard but has no Genius*; therefore Quintus *will never be a great Man.*

(4.) Gulo *can't make a Dinner without Fleſh and Fiſh*; *there was no Fiſh to be gotten to day*; therefore Gulo *this Day cannot make a Dinner.*

(5.) London *and* Paris *are in different Latitudes*; the *Latitude of* London *is* 51 ½ *Deg.* therefore *this cannot be the Latitude of* Paris.

(6.) Joſeph *and* Benjamin *had one Mother*; Rachel *was the Mother of* Joſeph; therefore *ſhe was* Benjamin's *Mother too.*

(7.) *The Father and the Son are of equal Stature*; The *Father is ſix Foot high*; therefore *the Son is ſix Foot high alſo.*

(8.) *Pride is inconſiſtent with Innocence*; *Angels have Innocence*; therefore *they have no Pride.* Or thus; *Devils have Pride*; therefore *they have not Innocence.*

I might multiply other Inſtances of theſe *connexive Syllogiſms*, by bringing in all ſorts of *exceptive*, *excluſive*, *comparative*, and *modal* Propoſitions into the Compoſition of them; for all theſe may be wrought into *conjunctive*, as well as into *ſimple* Syllogiſms, and thereby we may render

them *complex*. But it would waſte Time and Paper without equal Profit.

Concerning theſe various Kinds of *conjunctive* Syllogiſms, take theſe two Obſervations.

Obſerv. I. Moſt of them may be transformed into *categorical* Syllogiſms by thoſe who have a mind to prove the Truth of them that Way; or they may be eaſily converted into each other by changing the Forms of Speech.

Obſerv. II. Theſe *conjunctive* Syllogiſms are ſeldom deficient or faulty in the Form of them; for ſuch a Deficience would be diſcovered at firſt Glance generally by common Reaſon, without any artificial Rules of Logick: The chief Care therefore is to ſee that the *major* Propoſition be true, upon which the whole Force of the Argument uſually depends.

Sect. VI.

Of compound Syllogiſms.

WE properly call thoſe *compound Syllogiſms*, which are made up of two or more *ſingle Syllogiſms*, and may be reſolved into them. The chief Kinds are theſe, *Epichirema*, *Dilemma*, *Proſyllogiſmus*, and *Sorites*.

I. *Epichirema* is a Syllogiſm which contains the Proof of the major or minor, or both, before it draws the Concluſion. This is often uſed in Writing, in publick Speeches, and in common Converſation, that ſo each Part of the Diſcourſe may be confirmed and put out of Doubt, as it moves

on toward the Concluſion, which was chiefly deſigned. Take this Inſtance;

Sickneſs may be good for us; for it weans us from the Pleaſures of Life, and makes us think of dying;

But we are uneaſy under Sickneſs, which appears by our *Impatience, Complaints, Groanings,* &c.

Therefore *we are uneaſy ſometimes under that which is good for us.*

Another Inſtance you may ſee in *Cicero's* Oration in Defence of *Milo,* who had ſlain *Clodius.* His major Propoſition is, that *it is lawful for one Man to kill another who lies in wait to kill him;* which he proves from the *Cuſtom of Nations,* from *natural Equity, Examples,* &c. his minor is, that Clodius *laid wait for* Milo; which he proves by his *Arms, Guards,* &c. and then infers the Concluſion, that *it was lawful for* Milo *to kill* Clodius.

II. A *Dilemma* is an Argument which divides the whole into all its Parts or Members by a *diſjunctive* Propoſition, and then infers ſomething concerning each Part which is finally inferr'd concerning the whole. Inſtances of this are frequent; as, *In this Life we muſt either obey our vicious Inclinations or reſiſt them: To obey them will bring Sin and Sorrow, to reſiſt them is laborious and painful;* Therefore *we cannot be perfectly free from Sorrow or Pain in this Life.*

A *Dilemma* becomes *faulty* or *ineffectual* three Ways: *Firſt,* When the Members of the Diviſion are not well oppos'd, or not fully enumerated; for then the major is falſe. *Secondly,* When what is aſſerted concerning each part is not juſt; for then the minor is not true. *Thirdly,* When it may be retorted

retorted with equal Force upon him who utters it.

There was a famous ancient Instance of this Case wherein a *Dilemma* was retorted. *Euathlus* promised *Protagoras* a Reward when he had taught him the *Art of Pleading*, and it was to be paid the first Day that he gain'd any Cause in the Court. After a considerable time *Protagoras* goes to Law with *Euathlus* for the Reward, and uses this Dilemma; *Either the Cause will go on my Side or on yours: If the Cause goes on my Side, you must pay me according to the Sentence of the Judge: if the Cause goes on your Side, you must pay me according to your Bargain:* Therefore *whether the Cause goes for me or against me you must pay me the Reward.* But *Euathlus* retorted this Dilemma thus; *Either I shall gain the Cause or lose it: If I gain the Cause, then nothing will be due to you according to the Sentence of the Judge:* But *if I lose the Cause, nothing will be due to you according to my Bargain:* Therefore *whether I lose or gain the Cause I will not pay you, for nothing will be due to you.*

Note I^st^, A *Dilemma* is usually described as tho' it always proved the Absurdity, Inconvenience, or Unreasonableness of some Opinion or Practice; and this is the most common Design of it; but it is plain, that it may also be used to prove the Truth or Advantage of any thing proposed; as, *In Heaven we shall either have Desires or not: If we have no Desires, then we have full Satisfaction; if we have Desires, they shall be satisfied as fast as they arise*; therefore *in Heaven we shall be compleatly satisfied.*

Note 2^d^, This sort of Argument may be composed of three or more Members, and may be called a *Trilemma.*

III. A *Prosyllogism* is when two or more Syllogisms are so connected together, that the Conclusion of the former is the major or the minor of the following; as, *Blood can't think*; *but the Soul of Man thinks*; therefore *the Soul of Man is not Blood*; but *the Soul of a Brute is his Blood* according to the Scripture; therefore the *Soul of Man is different from the Soul of a Brute.* See another Instance in the *Introduction* to this Treatise, *p.* 5.

IV. A *Sorites* is when several middle Terms are chosen to connect one another successively in several Propositions, till the last Proposition connects its Predicate with the first Subject. Thus, *All Men of Revenge have their Souls often uneasy*; *uneasy Souls are a Plague to themselves*; *now to be ones own Plague is Folly in the extreme*; therefore *all Men of Revenge are extreme Fools.*

The Apostle, *Rom.* viii. 29. gives us an Instance of this sort of Argument if it were reduced to exact Form: *Whom he foreknew those he predestinated*; *whom he predestinated he called*; *whom he called he justified*; *whom he justified he glorified*; therefore *whom he foreknew he glorified.*

To these Syllogisms it may not be improper to add *Induction*, which is, when from several particular Propositions we infer one general; as, *The Doctrine of the* Socinians *cannot be proved from the Gospels, it cannot be proved from the Acts of the Apostles, it cannot be proved from the Epistles, nor the Book of Revelations*; therefore *it cannot be proved from the New Testament.*

Note, This sort of Argument is often defective, because there is not due Care taken to enumerate all the Particulars on which the Conclusion should depend.

All these four Kinds of Syllogisms in this Section may be called *redundant*, because they have more than three Propositions. But there is one sort of Syllogism which is *defective*, and is call'd an *Enthymem*, because only the Conclusion with one of the Premisses is expressed, while the other is supposed and reserv'd in the Mind: Thus, *There is no true Religion without good Morals*; therefore *a Knave cannot be truly religious*: Or thus, *It is our Duty to love our Neighbours as ourselves*; therefore *there are but few who perform their Duty.*

Note, This is the most common sort of Argument amongst Mankind both in Writing and in Speaking; for it would take up too much Time, and too much retard the Discourse to draw out all our Arguments in *Mood* and *Figure*. Besides, Mankind love to have so much Compliment paid to their Understandings as to suppose that they know the *Major* or *Minor*, which is suppressed and implied, when you pronounce the other Premiss and the *Conclusion.*

If there be any Debate about this Argument, the Syllogism must be compleated in order to try its Force and Goodness by adding the absent Proposition.

Sect. VII.

Of the middle Terms, of common Places or Topics, and Invention of Arguments.

THE next Division of Syllogisms is according to the *middle Term*, which is made use of in the Proof of any Proposition. Now the middle Term (as we have hinted before) is often called the *Argument*, because the Force of the Syllogism depends upon it: We must make a little Delay here

to treat briefly of the Doctrine of *Topics*, or *Places whence middle Terms* or *Arguments are drawn.*

All Arts and Sciences have some general Subjects which belong to them, which are call'd *Topics*, or *common Places*; because middle Terms are borrow'd, and Arguments deriv'd from them for the Proof of the various Propositions which we have occasion to discourse of. The Topics of *Grammar* are *Etymology*, *Noun*, *Verb*, *Construction*, *Signification*, &c. The Topics of *Logic* are *Genus*, *Species*, *Difference*, *Property*, *Definition*, *Division*, &c. The Topics of *Ontology* or *Metaphysics* are *Cause*, *Effect*, *Action*, *Passion*, *Identity*, *Opposition*, *Subject*, *Adjunct*, *Sign*, &c. The Topics of *Morality* or *Ethics* are *Law*, *Sin*, *Duty*, *Authority*, *Freedom* of *Will*, *Command*, *Threatning*, *Reward*, *Punishment*, &c. The Topics of *Theology* are *God*, *Christ*, *Faith*, *Hope*, *Worship*, *Salvation*, &c.

To these several Topics there belong particular Observations, Axioms, Canons or Rules *, which are laid down in their proper Sciences; as,

Grammar hath such Canons, (*viz.*) *Words in a different Construction obtain a different Sense. Words deriv'd from the same Primitive may probably have some Affinity in their original Meaning*, &c.

Canons in *Logic* are such as these, *Every Part of a Division singly taken must contain less than the Whole. A Definition must be peculiar and proper to the Thing defin'd. Whatever is affirmed or denied of the Genus, may be affirmed or denied of the Species*, &c.

Metaphysical Canons are such as these; *final Causes belong only to intelligent Agents. If a natural and necessary Cause operate, the Effect will follow,*

* A *Canon* is a Proposition declaring some Property of the Subject, which is not express in the *Definition* or *Division* of it.

&c.

&c. and there are large Catalogues of many more in each distinct Science.

Now it has been the Custom of those who teach *Logick* or *Rhetorick* to direct their Disciples, when they want an Argument, to consult the several *Topics* which are suited to their Subject of Discourse, and to rummage over the *Definitions*, *Divisions* and *Canons* that belong to each *Topic*. This is call'd the *Invention of an Argument*; and it is taught with much Solemnity in some Schools.

I grant there may be good Use of this Practice for Persons of a lower Genius, when they are to compose any Discourse for the Publick; or for those of superior Parts to refresh their Memory, and revive their Acquaintance with a Subject which has been long absent from their Thoughts; or when their natural Spirits labour under Indisposition and Languor; but when a Man of moderate Sagacity has made himself Master of his Theme by just Diligence and Enquiry, he has seldom need to run knocking at the Doors of all the *Topics* that he may furnish himself with Argument or Matter of speaking: And indeed it is only a Man of Sense and Judgment that can use *common Places* or *Topics* well; for amongst this Variety he only knows what is fit to be left out, as well as what is fit to be spoken.

By some *logical* Writers this Business of *Topics*, and *Invention* is treated of in such a manner with mathematical Figures and Diagrams, fill'd with the barbarous technical Words, *Napcas*, *Nipcis*, *Ropcos*, *Nosrop*, *&c.* as tho' an ignorant Lad were to be led mechanically in certain artificial Harnesses and Trammels to find out Arguments to prove or refute any Proposition whatsoever, without any rational Knowledge of the Ideas. Now there is no Need to throw Words of Contempt on such a Practice;

a Practice; the very Description of it carries Reproof and Ridicule in Abundance.

Sect. VIII.

Of several Kinds of Arguments and Demonstrations.

WE proceed now to the Division of Syllogisms according to the *middle Term*; and in this Part of our Treatise the Syllogisms themselves are properly called *Arguments*, and are thus distributed.

I. Arguments are call'd *Grammatical*, *Logical*, *Metaphysical*, *Physical*, *Moral*, *Mechanical*, *Theological*, &c. according to the Art, Science, or Subject whence the middle Term or Topick is borrow'd. Thus if we prove that *no Man should steal from his Neighbour* because the *Scripture forbids it*, this is a *theological* Argument: If we prove it from the *Laws of the Land*, it is *political*; but if we prove it from the *Principles of Reason* and *Equity*, the Argument is *moral*.

II. Arguments are either *certain* and *evident*, or *doubtful* and *merely probable*.

Probable Arguments are those whose Conclusions are prov'd by some probable Medium; as, *This Hill was once a Church-Yard, or a Field of Battle, because there are many human Bones found here.* This is not a *certain* Argument, for human Bones might have been convey'd there some other Way.

Evident and *certain* Arguments are call'd *Demonstrations*; for they prove their Conclusions by clear Mediums and undoubted Principles; and they are generally divided into these two Sorts.

1. Demon-

1. Demonstrations *a Priori*, which prove the Effect by its necessary Cause; as, I prove *the Scripture is infallibly true*, because it is *the Word of God, who cannot lye.*

2. Demonstrations *a Posteriori*, which infer the Cause from its necessary Effect; as, I infer *there hath been the Hand of some Artificer here*, because I find a *curious Engine.* Or, I infer *there is a God, from the Works of his Wisdom in the visible World.*

The last of these is call'd *Demonstratio τῦ ὅτι*, because it proves only the Existence of a Thing; the first is nam'd *Demonstratio τῦ διότι*, because it shews also the Cause of its Existence.

But *Note*, That tho' these two sorts of Arguments are most peculiarly call'd *Demonstrations*, yet generally any strong and convincing Argument obtains that Name; and it is the Custom of Mathematicians to call all their Arguments *Demonstrations*, from what Medium soever they derive them.

III. Arguments are divided into *artificial* and *inartificial.*

An *artificial* Argument is taken from the Nature and Circumstances of the Things; and if the Argument be strong it produces a *natural Certainty*; as *The World was first created by God, because nothing can create itself.*

An *inartificial* Argument is the Testimony of another, and this is call'd *original*, when our Information proceeds immediately from the Persons concern'd, or from Eye or Ear-Witnesses of a Fact: it is call'd *Tradition* when it is deliver'd by the Report of others.

We have taken Notice before, that Testimony is either divine or human. If the human Testimony be strong, it produces a *moral Certainty*; but

but divine Teſtimony produces a *ſupernatural Certainty* which is far ſuperior.

Note; Arguments taken from *human Teſtimony* as well as from *Laws and Rules of Equity*, are called *moral*; and indeed the ſame Name is alſo applied to every ſort of Argument which is drawn from the *free Actions of God*, or the *contingent Actions of Men*, wherein we cannot ariſe to a *natural Certainty*, but content ourſelves with an *high Degree of Probability*, which in many Caſes is ſcarce inferior to *natural Certainty*.

IV. Arguments are either *direct* or *indirect*. It is a *direct Argument* where the middle Term is ſuch as proves the Queſtion itſelf, and infers that very Propoſition which was the Matter of Enquiry. *An indirect* or *oblique Argument* proves or refutes ſome other Propoſition, and thereby makes the Thing enquir'd appear to be true by plain Conſequence.

Several Arguments are call'd *indirect*; as, (1.) When ſome contradictory Propoſition is prov'd to be falſe, improbable or impoſſible: Or when upon Suppoſition of the Falſhood or Denial of the original Propoſition, ſome Abſurdity is inferred. This is called a Proof *per impoſſibile*, or a *Reductio ad abſurdum*. (2.) When ſome other Propoſition is prov'd to be true which is leſs probable, and thence it follows that the original Propoſition is true, becauſe it is more probable. This is an Argument *ex magis probabili ad minus*. (3.) When any other Propoſition is prov'd upon which it was before agreed to yield the original Queſtion. This is an Argument *ex Conceſſo*.

V. There is yet another Rank of Arguments which have *Latin* Names; their true Diſtinction

is

is deriv'd from the Topics or middle Terms which are used in them, tho' they are called an Address to our *Judgment*, our *Faith*, our *Ignorance*, our *Profession*, our *Modesty*, and our *Passions*.

1. If an Argument be taken from the Nature or Existence of Things, and addrest to the *Reason* of *Mankind*, it is called *Argumentum ad Judicium*.

2. When it is borrow'd from some convincing Testimony, it is *Argumentum ad Fidem*, an Address to our *Faith*.

3. When it is drawn from any insufficient *Medium* whatsoever, and yet the Opposer has not Skill to refute or answer it, this is *Argumentum ad Ignorantiam*, an Address to our *Ignorance*.

4. When it is built upon the profest Principles or Opinions of the Person with whom we argue, whether these Opinions be true or false, it is named *Argumentum ad Hominem*, an Address to our *profest Principles*. St. *Paul* often uses this Argument when he reasons with the *Jews*, and when he says, *I speak as a Man*.

5. When the Argument is fetch'd from the Sentiments of some wise, great, or good Men, whose Authority we reverence and hardly dare oppose, it is called *Argumentum ad Verecundiam*, an Address to our *Modesty*.

6. I add finally, when an Argument is borrowed from any Topics which are suited to engage the Inclinations and Passions of the Hearers on the Side of the Speaker, rather than to convince the Judgment, this is *Argumentum ad Passiones*, an Address to the *Passions*; or if it be made publickly, it is call'd *ad Populum*, or an *Appeal to the People*.

After

After all these Divisions of *Syllogism* or *Argument* arising from the *middle Term*, there is one Distinction proper to be mention'd which arises from the *Premisses*. An Argument is call'd *uniform* when both the Premisses are deriv'd from the same Springs of Knowledge, whether it be *Sense*, *Reason*, *Consciousness*, *human Faith*, or *divine Faith:* But when the two Premisses are deriv'd from different Springs of Knowledge, it is call'd a *mixt Argument*.

Whether the Conclusion must be call'd *Human* or *Divine*, when one or both Premisses are Matters of *Divine Faith* but the Conclusion is drawn by *human Reason*, I leave to be disputed and determin'd in the *Schools* of *Theology*.

Thus the *second Chapter* is finish'd, and a particular Account given of all the *chief Kinds of Syllogisms* or Arguments which are made use of among Men, or treated of in *Logick*, together with *special* Rules for the Formation of them, as far as is necessary.

If a Syllogism agree with the Rules which are given for the Construction and Regulation of it, it is called a *true Argument:* If it disagree with these Rules, it is a *Paralogism*, or *false Argument:* But when a false Argument puts on the Face and Appearance of a true one, then it is properly called a *Sophism* or *Fallacy*, which shall be the Subject of the next Chapter.

CHAP.

CHAP. III.

The Doctrine of Sophisms.

FROM Truth nothing can really follow but what is *true:* Whensoever therefore we find a *false Conclusion* drawn from Premisses which seem to be true, there must be some Fault in the Deduction or Inference; or else one of the Premisses is not true in the Sense in which it is used in that Argument.

When an Argument carries the Face of Truth with it, and yet leads us into Mistake, it is a *Sophism*; and there is some Need of a *particular Description* of these fallacious Arguments, that we may with more Ease and Readiness detect and solve them.

SECT. I.

Of several Kinds of Sophisms, and their Solution.

AS the Rules of *right Judgment* and of *good Ratiocination* often coincide with each other, so the Doctrine of Prejudices, which was treated of in the second Part of *Logick*, has anticipated a great deal of what might be said on the *Subject* of *Sophisms*; yet I shall mention the most remarkable Springs of *false Argumentation*, which are reduc'd by Logicians to some of the following Heads.

I. The

I. The first sort of Sophism is call'd *Ignoratio Elenchi*, or a *Mistake of the Question*; that is, when something else is prov'd which has neither any necessary Connection or Inconsistency with the Thing enquired, and consequently gives no Determination to the Enquiry, tho' it may seem at first Sight to determine the Question; as, if any should conclude that St. *Paul* was not a *native Jew*, by proving that he was *born a Roman*; or if they should pretend to determine that *he was neither Roman*, nor *Jew*, by proving that he was *born at* Tarsus *in* Cilicia: These Sophisms are refuted by shewing that all these three may be true; for he was born of *Jewish Parents* in the *City* of *Tarsus*, and by some peculiar Privilege granted to his Parents, or his native City, he was born a *Denizon* of *Rome*. Thus there is neither of these three Characters of the Apostle inconsistent with each other, and therefore the proving one of them true does not refute the others.

Or if the Question be propos'd, *Whether Excess of Wine can be hurtful to him that drinks it*, and the Sophister should prove that *it revives his Spirits, it exhilarates his Soul, it gives a Man Courage, and makes him strong and active*, and then he takes it for granted that he has prov'd his Point.

But the Respondent may easily shew that tho' *Wine may do all this*, yet it may be *finally hurtful both to the Soul and Body of him that drinks it to excess*.

Disputers when they grow warm are ready to run into this Fallacy: They dress up the Opinion of their Adversary as they please, and ascribe Sentiments to him which he doth not acknowledge; and when they have with a great deal of Pomp attack'd and confounded these Images of Straw

of their own making, they triumph over their Adversary as tho' they had utterly confuted his Opinion.

It is a Fallacy of the same kind which a *Disputant* is guilty of when he finds that his Adversary is too hard for him, and that he cannot fairly prove the Question first propos'd; he then with Slyness and Subtilty turns the Discourse aside to some other kindred Point which he can prove, and exults in that new Argument wherein his Opponent never contradicted him.

The Way to prevent this *Fallacy* is by keeping the Eye fixt on the precise Point of Dispute, and neither wandring from it ourselves, nor suffering our Antagonist to wander from it, or substitute any thing else in its Room.

II. The next Sophism is called *Petitio Principii*, or a *Supposition of what is not granted*; that is, when any Proposition is proved by the same Proposition in other Words, or by something that is equally uncertain and disputed: As if any one undertake to prove that the *human Soul is extended thro' all the Parts of the Body*, because it *resides in every Member*, which is but the same Thing in other Words. Or if a *Papist* should pretend to prove that *his Religion is the only Catholick Religion*, and is *derived from Christ and his Apostles*, *because it agrees with the Doctrine of all the Fathers of the Church*, *all the holy Martyrs*, *and all the Christian World throughout all Ages:* Whereas this is a great Point in Contest, whether their Religion does agree with that of all the Antients and the primitive Christians, or no.

III. That Sort of Fallacy which is called a *Circle* is very near akin to the *Petitio Principii*; as,

when one of the Premiſſes in a Syllogiſm is queſtioned and oppoſed, and we intend to prove it by the Concluſion: Or, when in a Train of Syllogiſms we prove the laſt by recurring to what was the Concluſion of the firſt. The *Papiſts* are famous at this Sort of Fallacy, when they *prove the Scripture to be the Word of God by the Authority or infallible Teſtimony of their Church*; and when they are called to ſhew the *infallible Authority of their Church*, they pretend to prove it *by the Scripture.*

IV. The next kind of Sophiſm is called *non Cauſa pro Cauſâ*, or the *Aſſignation of a falſe Cauſe.* This the *peripatetic* Philoſophers were guilty of continually, when they told us that certain Beings, which they called *ſubſtantial Forms*, were the Springs of Colour, Motion, Vegetation, and the various Operations of natural Beings in the animate and inanimate World; when they informed us that *Nature was terribly afraid of Vacuum*, and that this was the Cauſe why the Water would not fall out of a long Tube if it was turned upſide down: The *Moderns* as well as the *Antients* fall often into this Fallacy when they poſitively aſſign the Reaſons of natural Appearances, without ſufficient Experiments to prove them.

Aſtrologers are overrun with this Sort of Fallacies, and they cheat the People groſly by pretending to *tell Fortunes*, and to deduce the Cauſe of the various Occurrences in the Lives of Men, from the *various Poſitions of the Stars and Planets*, which they call *Aſpects.*

When *Comets* and *Eclipſes* of the *Sun* and *Moon* are conſtrued to ſignify the Fate of Princes, the Revolution of States, Famine, Wars and Calamities

ties of all Kinds, it is a Fallacy that belongs to this Rank of *Sophisms*.

There is scarce any thing more common in human Life than this Sort of deceitful Argument. If any two accidental Events happen to concur, one is presently made the Cause of the other. *If* Titius *wronged his Neighbour of a Guinea*, and *in six Months after he fell down and broke his Leg*, weak Men will impute it to the divine Vengeance on *Titius* for his former Injustice. This Sophism was found also in the early Days of the World: For *when holy* Job *was surrounded with uncommon Miseries*, his own Friends inferr'd, that *he was a most heinous Criminal*, and charged him with *aggravated Guilt as the Cause of his Calamities*; tho' God himself by a Voice from Heaven solv'd this uncharitable Sophism, and cleared his Servant *Job* of that Charge.

How frequent is it among Men to impute Crimes to wrong Persons? We too often charge that upon the wicked Contrivance and premeditated Malice of a Neighbour, which arose merely from Ignorance, or from unguarded Temper. And on the other hand, when we have a Mind to excuse ourselves, we practise the same Sophism, and charge that upon our Inadvertence or our Ignorance, which perhaps was design'd Wickedness. What is really done by a Necessity of Circumstances, we sometimes impute to Choice: And again, we charge that upon Necessity, which was really desired and chosen.

Sometimes a Person acts out of Judgment in Opposition to his Inclination; another Person perhaps acts the same Thing out of Inclination, and against his Judgment. 'Tis hard for us to determine with Assurance what are the inward

Springs and ſecret Cauſes of every Man's Conduct; and therefore we ſhould be cautious and ſlow in paſſing a Judgment, where the Caſe is not exceeding evident: And if we ſhould miſtake, let it rather be on the charitable than on the cenſorious Side.

'Tis the ſame *Sophiſm* that charges *mathematical Learning with leading the Minds of Men to Scepticiſm and Infidelity*, and as unjuſtly accuſes the *new Philoſophy of paving the Way to Hereſy and Schiſm.* Thus the *Reformation from Popery* has been charged with the *Murder and Blood of Millions*, which in Truth is to be imputed to the *Tyranny of the Princes and the Prieſts*, who would not ſuffer the People to reform their Sentiments and their Practices according to the Word of God. Thus *Chriſtianity* in the primitive Ages was charged by the *Heathens* with all the Calamities which befel the *Roman Empire*, becauſe the Chriſtians renounced the Heathen Gods and Idols.

The Way to relieve ourſelves from theſe Sophiſms, and to ſecure ourſelves from the Danger of falling into them, is an honeſt and diligent Enquiry into the real Nature and Cauſes of Things, with a conſtant Watchfulneſs againſt all thoſe Prejudices that might warp the Judgment aſide from Truth in that Enquiry.

V. The next is called *fallacia Accidentis*, or a Sophiſm wherein we pronounce concerning the *Nature and eſſential Properties* of any Subject according to ſomething which is merely *accidental* to it. This is akin to the former, and is alſo very frequent in human Life. So if *Opium* or the *Peruvian Bark* has been uſed imprudently or unſucceſsfully,

successfully, whereby the Patient has received Injury, some weaker People absolutely pronounce against the Use of the *Bark* or *Opium* upon all Occasions whatsoever, and are ready to call them *Poison*. So *Wine* has been the accidental Occasion of *Drunkenness* and *Quarrels*; *Learning* and *Printing* may have been the accidental Cause of *Sedition* in a State; the *Reading of the Bible* by Accident hath been abused to promote *Heresies* or *destructive Errors*; and for these Reasons they have been all pronounced *evil Things*. *Mahomet* forbad his Followers the Use of *Wine*; the *Turks* discourage Learning in their Dominions; and the *Papists* forbid the *Scripture* to be read by the *Laity*. But how very unreasonable are these Inferences, and these Prohibitions which are built upon them!

VI. The next *Sophism* borders upon the former; and that is when we argue from that which is true in *particular Circumstances* to prove the same thing true *absolutely*, *simply*, *and abstracted from all Circumstances*; this is called in the Schools a Sophism *a dicto secundum quid ad dictum simpliciter*; as, *That which is bought in the Shambles is eaten for Dinner*; *raw Meat is bought in the Shambles*; therefore *raw Meat is eaten for Dinner*. Or thus, Livy *writes Fables and Improbabilities when he describes Prodigies and Omens*; therefore *Livy*'s Roman *History is never to be believed in any thing*. Or thus, *There may be some Mistake of Transcribers in some Part of Scripture*; therefore *Scripture alone is not a safe Guide for our Faith*.

This Sort of Sophism has its *Reverse* also; as, when we argue from that which is true *simply* and *absolutely* to prove the same thing true *in all parti-*

cular Circumſtances whatſoever * ; *as* if a *Traytor* ſhould argue from the ſixth Commandment, *Thou ſhalt not kill a Man*, to prove that *he himſelf ought not to be hanged:* Or if a Madman ſhould tell me, *I ought not to withhold his Sword from him, becauſe no Man ought to withhold the Property of another.*

Theſe two laſt *Species* of *Sophiſms* are eaſily ſolved by ſhewing the Difference betwixt Things in their *abſolute Nature*, and the ſame Things ſurrounded with *peculiar Circumſtances*, and conſidered in Regard to ſpecial Times, Places, Perſons and Occaſions; or by ſhewing the Difference between a *moral* and a *metaphyſical Univerſality*, and that the Propoſition will hold good in one Caſe, but not in the other.

VII. The Sophiſms of *Compoſition* and *Diviſion* come next to be mentioned.

The *Sophiſm* of *Compoſition* is when we infer any thing concerning Ideas in a *compounded Senſe*, which is only true in a *divided Senſe*. As when it is ſaid in the Goſpel that *Chriſt made the Blind to ſee*, and the *Deaf to hear*, and the *Lame to walk*, we ought not to infer hence that *Chriſt performed Contradictions*; but thoſe who *were blind before* were made to ſee, and thoſe who *were deaf before* were made to hear, *&c.* So when the Scripture aſſures us *the worſt of Sinners may be ſaved*, it ſignifies only that *they who have been the worſt of Sinners* may repent and be ſaved, not that they ſhall be ſaved in their Sins. Or if any one ſhould argue thus, *Two and three are even and odd*; *five*

* This is arguing from a *moral Univerſality* which admits of ſome Exceptions, in the ſame manner as may be argued from *metaphyſical* or a *natural Univerſality*, which admits of no Exceptions.

are

are two and three; therefore *five are even and odd*. Here that is very falsely infer'd concerning *two or three in Union*, which is only true of them *divided*.

The *Sophism* of *Division* is when we infer the same Thing concerning Ideas in a *divided Sense*, which is only true in a *compounded Sense*; as, if we should pretend to prove that *every Soldier in the Grecian Army put an hundred thousand Persians to Flight*, because the *Grecian Soldiers did so*. Or if a Man should argue thus; *five is one Number*; *two and three are five*; therefore *two and three are one Number*.

This sort of Sophisms is committed when the Word *All* is taken in a *collective* and a *distributive* Sense, without a due Distinction; as, if any one should reason thus; *All the musical Instruments of the* Jewish *Temple made a noble Concert*, *The Harp was a musical Instrument of the* Jewish *Temple*; therefore *the Harp made a noble Concert*. Here the Word *All* in the Major is collective, whereas such a Conclusion requires that the Word *All* should be distributive.

It is the same Fallacy when the universal Word *All* or *No* refers to *Species* in one Proposition, and to *Individuals* in another; as, *All Animals were in* Noah's *Ark*; therefore *no Animals perish'd in the Flood*: Whereas in the Premise *all Animals* signifies *every kind of Animals*, which does not exclude or deny the drowning of a thousand *Individuals*.

VIII. The last sort of *Sophisms* arises from our *Abuse of the Ambiguity of Words*, which is the largest and most extensive kind of Fallacy; and indeed several of the former *Fallacies* might be reduced to this Head.

When the Words or Phraſes are *plainly equivocal*, they are called *Sophiſms* of *Equivocation*; as, if we ſhould argue thus, *He that ſends forth a Book into the Light, deſires it to be read*; *He that throws a Book into the Fire, ſends it into the Light*; therefore, *he that throws a Book into the Fire deſires it to be read.*

This Sophiſm, as well as the foregoing, and all of the like Nature are ſolved by ſhewing the different Senſes of the Words, Terms or Phraſes. Here *Light* in the major Propoſition ſignifies the *public View of the World*; in the minor it ſignifies the *Brightneſs of Flame or Fire*, and therefore the Syllogiſm has four Terms, or rather it has no *middle Terms*, and proves nothing.

But where ſuch *groſs Equivocations* and *Ambiguities* appear in Arguments, there is little Danger of impoſing upon ourſelves or others. The greateſt Danger, and which we are perpetually expoſed to in Reaſoning, is, where the two Senſes or Significations of one Term are near akin, and not plainly diſtinguiſhed, and yet they are really ſufficiently different in their Senſe to lead us into great Miſtakes, if we are not watchful. And indeed the greateſt Part of Controverſies in the ſacred or civil Life ariſe from the different Senſes that are put upon Words, and the different Ideas which are included in them; as has been ſhewn at large in the firſt Part of Logick, *Chap.* IV. which treats of *Words* and *Terms*.

There is after all theſe, another ſort of Sophiſm which is wont to be called an *imperfect Enumeration*, or a *falſe Induction*, when from a few Experiments or Obſervations Men infer general Theorems and univerſal Propoſitions. But this is ſufficiently notic'd in the foregoing Chapter, where we treated of that ſort of Syllogiſm which is call'd *Induction*.

SECT.

Sect. II.

Two general Tests of true Syllogisms, and Methods of solving all Sophisms.

BEsides the special Description of *true Syllogisms* and *Sophisms* already given, and the Rules by which the one are fram'd, and the other refuted, there are these two *general Methods* of reducing all Syllogisms whatsoever to a *Test* of their Truth or Falshood.

I. The first is that *the Premisses must* (at least implicitly) *contain the Conclusion*; or thus, *One of the Premisses must contain the Conclusion, and the other must shew that the Conclusion is contain'd in it.* The Reason of this Rule is this; When any Proposition is offered to be proved, it is necessary to find another Proposition which confirms it, which may be called the *containing Proposition*; but because the second must not contain the first in an express manner, and in the same Words*, therefore it is necessary that a third or *ostensive* Proposition be found out to shew that the second Proposition contains the first which was to be prov'd. Let us make an Experiment of this Syllogism. *Whosoever is a Slave to his natural Inclinations is miserable*; *the wicked Man is a Slave to his natural Inclinations*; therefore *the wicked Man is miserable.* Here it is evident that the major Proposition contains the Conclusion;

* It is confess'd that *conditional* and *disjunctive* major Propositions do expressly contain all that is in the Conclusion, but then it is not in a *certain* and *conclusive Manner*, but only in a *dubious* Form of Speech, and mingled with other Terms, and therefore it is not the *same express Proposition.*

for

for under the general Character of a *Slave to natural Inclinations*, *a wicked Man* is contain'd or included; and the minor Propoſition declares it; whence the *Concluſion* is evidently deduc'd that *the wicked Man is miſerable.*

In *many affirmative* Syllogiſms we may ſuppoſe either the major or the minor to contain the Concluſion, and the other to ſhew it; for there is no great Difference. But in *negative* Syllogiſms it is the negative Propoſition that contains the Concluſion, and the affirmative Propoſition ſhews it; as, *every wiſe Man maſters his Paſſions*; *no angry Man maſters his Paſſions*; therefore *no angry Man is wiſe.* Here it is more natural to ſuppoſe the minor to be the *containing Propoſition*; it is the minor implicitly denies *Wiſdom* concerning *an angry Man*, becauſe *maſtering the Paſſions* is included in *Wiſdom*, and the major ſhews it.

Note, This Rule may be applied to *complex* and *conjunctive*, as well as *ſimple* Syllogiſms, and is adapted to ſhew the Truth or Falſhood of any of them.

II. The ſecond is this; *As the Terms in every Syllogiſm are uſually repeated twice, ſo they muſt be taken preciſely in the ſame Senſe in both Places:* For the greateſt Part of Miſtakes, that ariſe in forming Syllogiſms, is deriv'd from ſome little Difference in the Senſe of one of the Terms in the two Parts of the Syllogiſm wherein it is uſed. Let us conſider the following Sophiſms.

1. *It is a Sin to kill a Man*; *a Murderer is a Man*; therefore *it is a Sin to kill a Murderer.* Here the Word *Kill* in the firſt Propoſition ſignifies *to kill unjuſtly, or without a Law*; in the Concluſion it is taken abſolutely for *putting a Man*

Man to Death in general, and therefore the Inference is not good.

2. *What I am, you are not*; but *I am a Man*; therefore *you are not a Man.* This is a *relative Syllogism:* But if it be reduc'd to a regular *categorical* Form, it will appear there is Ambiguity in the Terms, thus; *What I am, is a Man*; *you are not what I am*; therefore *you are not a Man.* Here *what I am*, in the major Proposition, is taken *specifically* for *my Nature*; but in the minor Proposition the same Words are taken *individually* for *my Person*; therefore the Inference must be false, for the Syllogism doth not take the Term *what I am* both Times in the same Sense.

3. *He that says you are an Animal, says true*; but *he that says you are a Goose, says you are an Animal*; therefore *he that says you are a Goose, says true.* In the major Proposition the Word *Animal* is the Predicate of an *incidental Proposition*; which incidental Proposition being affirmative renders the Predicate of it particular, according to *Chap.* II^d, *Sect.* 2^d, *Axiom.* 3. and consequently the Word *Animal* there signifies only *human Animality.* In the minor Proposition, the Word *Animal*, for the same Reason, signifies the *Animality of a Goose*; thereby it becomes an ambiguous Term, and unfit to build the Conclusion upon. Or if you say, the Word *Animal* in the Minor is taken for *human Animality*, then the Minor is evidently false.

It is from this last *general Test* of Syllogisms that we derive the Custom of the *Respondent* in answering the Arguments of the *Opponent*, which is to distinguish upon the major or minor Proposition, and declare which Term is used in two Senses, and in what Sense the Proposition may be true, and in what Sense it is false.

CHAP.

CHAP. IV.

Some general Rules to direct our Reasoning.

MOST of the *general* and *special* Directions given to form our Judgments aright in the preceding Part of *Logick* might be rehearsed here; for the *Judgments* which we pass upon Things are generally built on some secret *Reasoning* or *Argument* by which the Proposition is supposed to be proved. But there may be yet some farther Assistances given to our *reasoning Powers* in their Search after Truth, and an Observation of the following *Rules* will be of great Importance for that End.

I. RULE. *Accustom yourselves to clear and distinct Ideas, to evident Propositions, to strong and convincing Arguments.* Converse much with those Friends, and those Books, and those Parts of Learning where you meet with the greatest Clearness of Thought and Force of Reasoning. The *mathematical* Sciences, and particularly *Arithmetick*, *Geometry*, and *Mechanicks* abound with these Advantages: And if there were nothing valuable in them for the Uses of human Life, yet the very speculative Parts of this sort of Learning are well worth our Study; for by perpetual Examples they teach us to conceive with Clearness, to connect our Ideas and Propositions in a Train of Dependence, to reason with Strength and Demonstration, and to distinguish between Truth and Falshood. Something of these Sciences should be studied by every Man who pretends to Learning, and that (as Mr. *Locke* expresses it) *not so much to*

make us Mathematicians, as to make us reasonable Creatures.

We should gain such a Familiarity with Evidence of Perception and Force of Reasoning, and get such a Habit of discerning clear Truths, that the Mind may be soon offended with Obscurity and Confusion: Then we shall (as it were) naturally and with Ease restrain our Minds from rash Judgment, before we attain just Evidence of the Proposition which is offer'd to us; and we shall with the same Ease, and (as it were) naturally seize and embrace every Truth that is propos'd with just Evidence.

This Habit of *conceiving clearly*, of *judging justly*, and of reasoning well, is not to be attain'd merely by the Happiness of Constitution, the Brightness of Genius, the best natural Parts, or the best Collection of logical Precepts. It is *Custom* and *Practice that must form* and establish this Habit. We must apply ourselves to it till we perform all this readily, and without reflecting on Rules. A *coherent Thinker*, and a *strict Reasoner* is not to be made at once by a Set of Rules, any more than a *good Painter* or *Musician* may be form'd *extempore* by an excellent Lecture on Music or Painting. It is of infinite Importance therefore in our younger Years to be taught both the *Value* and the *Practice* of conceiving clearly and reasoning right: For when we are grown up to the middle of Life, or past it, it is no Wonder that we should not learn good Reasoning, any more than that an *ignorant Clown* should not be able to learn fine Language, Dancing, or a courtly Behaviour, when his rustic Airs have grown up with him till the Age of Forty.

For

For want of this Care *ſome Perſons* of *Rank* and *Education* dwell all their Days among obſcure Ideas; they conceive and judge always in Confuſion, they take weak Arguments for Demonſtration, they are led away with the Diſguiſes and Shadows of Truth. Now if ſuch Perſons happen to have a bright Imagination, a Volubility of Speech, and a Copiouſneſs of Language, they not only impoſe many Errors upon their own Underſtandings, but they ſtamp the Image of their own Miſtakes upon their Neighbours alſo, and ſpread their Errors abroad.

It is a Matter of juſt Lamentation and Pity to conſider the Weakneſs of the *common Multitude of Mankind* in this Reſpect, how they receive any thing into their Aſſent upon the moſt trifling Grounds. True Reaſoning hath very little Share in forming their Opinions. They reſiſt the moſt convincing Arguments by an obſtinate Adherence to their Prejudices, and believe the moſt improbable Things with the greateſt Aſſurance. They talk of the abſtruſeſt Myſteries, and determine upon them with the utmoſt Confidence, and without juſt Evidence either from Reaſon or Revelation. A confuſed Heap of dark and inconſiſtent Ideas make up a good Part of their Knowledge in Matters of *Philoſophy* as well as *Religion*, having never been taught the Uſe and Value of clear and juſt Reaſoning.

Yet it muſt be ſtill confeſt that there are ſome *Myſteries in Religion*, both *natural* and *revealed*, as well as ſome *abſtruſe Points in Philoſophy*, wherein the Wiſe as well as the Unwiſe muſt be content with obſcure Ideas. There are ſeveral Things, eſpecially relating to the inviſible World, which are unſearchable in our preſent State, and therefore we muſt believe what Revelation plainly dictates,

tates, tho' the Ideas may be obscure. Reason itself demands this of us; but we should seek for the brightest Evidence both of Ideas, and of the Connection of them, wheresoever it is attainable.

IId RULE. *Enlarge your general Acquaintance with Things daily, in order to attain a rich Furniture of Topics, or middle Terms, whereby those Propositions which occur may be either proved or disproved*; but especially *meditate and enquire with great Diligence and Exactness into the Nature, Properties, Circumstances and Relations of the particular Subject about which you judge or argue.* Consider its Causes, Effects, Consequences, Adjuncts, Opposites, Signs, *&c.* so far as is needful to your present Purpose. You should survey a Question round about, and on all Sides, and extend your Views as far as possible, to every Thing that has a Connection with it. This Practice has many Advantages in it; as,

1. It will be a Means to suggest to your Minds proper Topics for Argument about any Proposition that relates to the same Subject.

2. It will enable you with greater Readiness and Justness of Thought to give an Answer to any sudden Question upon that Subject, whether it arises in your own Mind, or to be proposed by others.

3. This will instruct you to give a plainer and speedier Solution of any Difficulties that may attend the Theme of your Discourse, and to refute the Objections of those who have espoused a contrary Opinion.

4. By such a large Survey of the whole Subject in all its Properties and Relations, you will be better secured from Inconsistencies, *i. e.* from asserting or denying any thing in one Place, which contradicts what you have asserted or denied in another:

other: And to attain these Ends, an Extensiveness of Understanding, and a large Memory are of unspeakable Service.

One would be ready to wonder sometimes how easily great and wise, and learned Men are led into Assertions in some Parts of the same Treatise, which are found to be scarce consistent with what they have asserted in other Places: But the true Reason is the *Narrowness of the Mind of Man*, that it cannot take in all the innumerable Properties and Relations of one Subject with a single View; and therefore whilst they are intent on one particular Part of their Theme, they bend all their Force of Thought to prove or disprove some Proposition that relates to that Part, without a sufficient Attention to the Consequences which may flow from it, and which may unhappily affect another Part of the same Subject, and by this Means they are sometimes led to say things which are inconsistent. In such a Case the great Dealers in Dispute and Controversy take pleasure to cast *Nonsense* and *Self-Contradiction* on their Antagonist with huge and hateful Reproaches. For my part, I rather choose to pity human Nature, whose necessary Narrowness of Understanding exposes us all to some Degrees of this Frailty. But the most extensive Survey possible of our whole Subject is the best Remedy against it. It is our judging and arguing upon a partial View of Things, that exposes us to Mistakes, and pushes us into Absurdities, or at least to the very Borders of them.

III^d RULE. *In searching the Knowledge of Things, always keep the precise Point of the present Question in your Eye. Take heed that you add nothing to it while you are arguing, nor omit any Part of it.*

Watch

Watch carefully lest any new Ideas slide in to mingle themselves either with the Subject or the Predicate. See that the Question be not altered by the Ambiguity of any Word taken in different Senses; nor let any secret Prejudices of your own, or the sophistical Arts of others, cheat your Understanding by changing the Question, or shuffling in any thing else in its room.

And for this End it is useful to keep the precise Matter of Enquiry as *simple* as may be, and *disengaged from a Complication of Ideas*, which do not necessarily belong to it. By admitting a Complication of Ideas, and taking too many Things at once into one Question, the Mind is sometimes dazzled and bewildered; and the Truth is lost in such a Variety and Confusion of Ideas; whereas by limiting and narrowing the Question, you take a fuller Survey of the whole of it.

By keeping the single Point of Enquiry in our constant View, we shall be secured from sudden, rash, and impertinent Responses and Determinations, which some have obtruded instead of Solutions and solid Answers, before they perfectly know the Question.

IVth RULE. *When you have exactly considered the precise Point of Enquiry, or what is unknown in the Question, then consider what, and how much you know already of this Question, or of the Ideas and Terms of which it is composed.* It is by a Comparison of the known and unknown Parts of the Question together, that you find what Reference the Part known hath unto, or what Connection it hath with the Thing that is sought: Those Ideas whereby the known and unknown Parts of the Question are connected, will furnish you with middle Terms

or Arguments whereby the Thing propoſed may be prov'd or diſprov'd.

In this Part of your Work, (*viz.*) *Comparing Ideas together*, take due time, and be not too haſty to come to a Determination, eſpecially in Points of Importance. Some Men when they ſee a little Agreement or Diſagreement between Ideas, they preſume a great deal, and ſo jump into the Concluſion: This is a ſhort Way to Fancy, Opinion and Conceit, but a moſt unſafe and uncertain Way to true Knowledge and Wiſdom.

V^th^ RULE. *In chooſing your middle Terms or Arguments to prove any Queſtion, always take ſuch Topics as are ſureſt, and leaſt fallible, and which carry the greateſt Evidence and Strength with them.* Be not ſo ſolicitous about the Number, as the Weight of your Arguments, eſpecially in proving any Propoſition which admits of *natural Certainty*, or of *compleat Demonſtration*. Many times we do Injury to a Cauſe by dwelling upon trifling Arguments. We amuſe our Hearers with Uncertainties by multiplying the Number of feeble Reaſonings, before we mention thoſe which are more ſubſtantial, concluſive and convincing. And too often we yield up our own Aſſent to mere probable Arguments, where certain Proofs may be obtained.

Yet it muſt be confeſs'd there are many Caſes wherein the *growing Number of probable Arguments* increaſes the Degree of Probability, and gives a great and ſufficient Confirmation to the Truth which is ſought; as,

(1.) When we are enquiring the true Senſe of any Word or Phraſe, we are more confirmed in the Signification of it by finding the ſame Expreſſion

preſſion ſo uſed in ſeveral Authors, or in ſeveral Places of the ſame Author.

(2.) When we are ſearching out the true Meaning or Opinion of any Writer, or enquiring into any ſacred Doctrine of Scripture, we come to a ſurer Determination of the Truth by ſeveral diſtinct Places wherein the ſame Thing is expreſs'd or plainly implied; becauſe it is not ſo probable that an honeſt skilful Reader ſhould miſtake the Meaning of the Writer in many Places, as he may in one or two.

(3.) When we would prove the Importance of any ſcriptural Doctrine or Duty, the Multitude of Texts, wherein it is repeated and inculcated upon the Reader, ſeem naturally to inſtruct us that it is a Matter of greater Importance, than other Things which are but ſlightly or ſingly mentioned in the Bible.

(4.) In ſearching out Matters of Fact in Times paſt or in diſtant Places (in which Caſe *moral Evidence* is ſufficient, and *moral Certainty* is the utmoſt which can be attained) here we derive a greater Aſſurance of the Truth of it by a Number of Perſons, or a Multitude of Circumſtances concurring to bear Witneſs to it.

(5.) From many Experiments in natural Philoſophy we more ſafely infer a general Theorem, than we can from one or two.

(6.) In Matters which require preſent Practice, both ſacred and civil, we muſt content ourſelves oftentimes with a mere Preponderation of probable Reaſons or Arguments. Where there are ſeveral Reaſons on each Side, for and againſt a Thing that is to be done or omitted, a ſmall Argument added to the Heap may juſtly turn the Balance on one Side, and determine the Judgment, as I have noted in the 2d *Part* of *Logick*.

To conclude; a growing Acquaintance with Matters of Learning, and a daily Improvement of our Understandings in Affairs human and divine, will best teach us to judge and distinguish in what Cases the Number of Arguments adds to their Weight and Force: It is only Experience can fully inform us when we must be determin'd by *probable Topics*, and when we must seek and expect *Demonstrations*.

VIth RULE. *Prove your Conclusion* (*as far as possible*) *by some Propositions that are in themselves more plain, evident, and certain than the Conclusion*; or *at least such as are more known, and more intelligible to the Person whom you would convince.* If we neglect this *Rule*, we shall endeavour to enlighten that which is obscure by something equally or more obscure, and to confirm that which is doubtful by something equally or more uncertain. Common Sense dictates to all Men, that it is impossible to establish any Truth, and to convince others of it, but by something that is better known to them than that Truth is.

VIIth RULE. *Labour in all your Arguings to enlighten the Understanding, as well as to conquer and captivate the Judgment.* Argue in such a manner as may give a natural, distinct, and solid Knowledge of Things to your Hearers, as well as to force their Assent by a mere Proof of the Question. Now to attain this End, the chief Topic or Medium of your Demonstration should be fetch'd, as much as possible, from the Nature of the Thing to be proved, or from those Things which are most naturally connected with it.

Geome-

Geometricians sometimes break this Rule without Necessity, two Ways, (*viz.*)

1. When they prove one Proposition only by shewing what Absurdities will follow if the contradictory Proposition be supposed or admitted; This is called *Reductio ad absurdum* *, or *Demonstratio per impossibile*; as for Instance, When they prove all the *Radii of a Circle to be equal*, by supposing one *Radius* to be longer or shorter than another, and then shewing what absurd Consequences will follow. This, I confess, forces the Assent, but it does not enlighten the Mind by shewing the true Reason and Cause why *all Radii are equal*, which is derived from the very Construction of a Circle: For since a Circle is formed by fixing one End of a strait Line in the Centre, and moving the other End round (or, which is all one, by Compasses kept open to a certain Extent) it follows evidently that every Part of the Circumference being thus described must be equally distant from the Centre, and therefore the *Radii*, which are Lines from the Center to the Circumference, *must all be equal.*

2. *Geometricians* forget this Rule when they heap up many far-fetch'd Lines, Figures and Proportions to prove some plain, simple and obvious Proposition. This is called a *Demonstration per aliena & remota*, or an Argument from unnatural and remote Mediums: As if in order to prove *the Radii of a Circle are all equal* I should make several Triangles and Squares about the Circle,

* *Note*, This *Rule* chiefly refers to the *Establishment* of some Truth, rather than to the *Refutation* of Error. It is a very common and useful Way of arguing to refute a false Proposition by shewing what evident Falshood or Absurdity will follow from it: For what Proposition soever is really absurd and false, does effectually prove that Principle to be false from which it is derived; so that this Way of refuting an Error is not so usually called *Reductio ad absurdum.*

and then form ſome Properties and Propoſitions of Squares and Triangles prove that the *Radii of a Circle are equal.*

Yet it muſt be confeſs'd, that ſometimes ſuch Queſtions happen, that it is hardly poſſible to prove them by *direct Arguments* drawn from the Nature of Things, *&c.* and then it may not only be lawful, but neceſſary to uſe *indirect Proofs*, and *Arguments* drawn from *remote Mediums*, or from the *Abſurdity of the contradictory Suppoſition.*

Such *indirect* and *remote* Arguments may alſo be ſometimes uſed to confirm a Propoſition which has been before proved by Arguments more *direct* and *immediate.*

VIIIth RULE. Tho' Arguments ſhould give Light to the Subject, as well as conſtrain the Aſſent, yet you muſt learn to *diſtinguiſh well between an Explication and an Argument*; *and neither impoſe upon yourſelves, nor ſuffer yourſelves to be impos'd upon by others, by miſtaking a mere Illuſtration for a convincing Reaſon.*

Axioms themſelves, or ſelf-Evident Propoſitions may want an *Explication* or *Illuſtration*, tho' they are not to be proved by *Reaſoning.*

Similitudes and *Alluſions* have oftentimes a very happy Influence to explain ſome difficult Truth, and to render the Idea of it familiar and eaſy. Where the Reſemblance is juſt and accurate, the Influence of a *Simile* may proceed ſo far as to ſhew the Poſſibility of the Thing in Queſtion: But *Similitudes* muſt not be taken as a ſolid Proof of the Truth or Exiſtence of thoſe Things to which they have a Reſemblance. A too great Deference paid to *Similitudes*, or an utter Rejection of them ſeem to be two Extremes, and ought to be avoided. The late ingenious Mr. *Locke*, even

even in his Enquiries after Truth, makes great Use of *Similes* for frequent Illustration, and is very happy in the Invention of them, tho' he warns us also lest we mistake them for Conclusive Arguments.

Yet let it be noted here, that a *Parable* or a *Similitude* used by any Author, may give a sufficient Proof of the true Sense and Meaning of that Author, provided that we draw not this Similitude beyond the Scope and Design for which it was brought; as when our Saviour affirms, *Rev.* iii. 3. *I will come on thee as a Thief*, this will plainly prove that he describes the *Unexpectedness of his Appearance*, tho' it will by no means be drawn to signify any *Injustice in his Design.*

IXth RULE. *In your whole Course of Reasoning keep your Mind sincerely intent in the Pursuit of Truth; and follow solid Argument wheresoever it leads you.* Let not a *Party-Spirit*, or *any Passion* or *Prejudice* whatsoever, stop or avert the Current of your Reasoning in the Quest of true Knowledge.

When you are enquiring therefore into any Subject, maintain a due Regard to the *Arguments* and *Objections* on both Sides of a Question: Consider, compare, and balance them well before you determine for one Side. It is a frequent, but a very faulty Practice to hunt after Arguments only to make good one Side of a Question, and entirely to neglect and refuse those which favour the other Side. If we have not given a due Weight to Arguments on both Sides, we do but wilfully misguide our Judgment, and abuse our Reason, by forbidding its Search after Truth. When we espouse Opinions by a secret Bias on the Mind thro' the Influences of *Fear*, *Hope*, *Honour*, *Credit*,

dit, *Intereſt*, or any other *Prejudice*, and then ſeek Arguments only to ſupport thoſe Opinions, we have neither done our Duty to God or to our ſelves; and it is a Matter of mere Chance if we ſtumble upon Truth in our Way to Eaſe and Preferment. The *Power* of *Reaſoning* was given us by our Maker for this very End, *to purſue Truth*; and we abuſe one of his richeſt Gifts, if we baſely yield it up to be led aſtray by any of the meaner Powers of Nature, or the periſhing Intereſts of this Life. *Reaſon* itſelf, if honeſtly obey'd, will lead us to receive the divine *Revelation* of the Goſpel, where it is duly propoſed, and this will ſhew us the Path of Life everlaſting.

THE

THE FOURTH PART OF LOGICK.

Of Disposition and Method.

IT is not merely a *clear and distinct Idea*, a *well-form'd Proposition*, or a *just Argument*, that is sufficient to search out and communicate the Knowledge of a Subject. There must be a Variety and Series of them dispos'd in a due manner in order to attain this End: And therefore it is the Design of the *last Part of Logick* to teach us the *Art of Method*. It is that must secure our Thoughts from that Confusion, Darkness, and Mistake which unavoidably attend the Meditations and Discourses even of the brightest Genius who despises the Rules of it.

1. We shall here consider the *Nature of Method*, and *the several kinds of it*.

2. Lay down the *general Rules of Method*, with a few Particulars under them.

CHAP.

CHAP. I.

Of the Nature of Method, and the ſeveral Kinds of it, (viz.) *Natural and Arbitrary, Synthetic and Analytic.*

Method, taken in the largeſt Senſe, implies the *placing of ſeveral Things, or performing ſeveral Operations in ſuch an Order as is moſt convenient to attain ſome End propoſed:* And in this Senſe it is applied to all the Works of Nature and Art, to all the divine Affairs of Creation and Providence; and to the Artifices, Schemes, Contrivances and Practices of Mankind, whether in natural, civil, or ſacred Affairs.

Now this orderly Diſpoſition of Things includes the Ideas of *Prior*, *Poſterior*, and *Simultaneous*; of *Superior*, *Inferior*, and *Equal*; of *Beginning*, *End*, and *Middle*, &c. which are deſcribed more particularly among the *general Affections of Being* in *Ontology*.

But in *Logick* Method is uſually taken in a more limited Senſe, and the Nature of it is thus deſcribed: Method is *the Diſpoſition of a Variety of Thoughts on any Subject in ſuch Order as may beſt ſerve to find out unknown Truths, to explain and confirm Truths that are known, or to fix them in the Memory*.

It is diſtributed into two general Kinds, (*viz.*) *Natural* and *Arbitrary*.

Natural Method is that which obſerves the Order of Nature, and proceeds in ſuch a manner as that the Knowledge of the Things which follow depends in a great meaſure on the Things which go before, and this is twofold, (*viz.*) *Synthetic* and

and *Analytic*, which are sometimes called *Synthesis* and *Analysis* *.

Synthetick Method is that which begins with the Parts †, and leads onward to the Knowledge of the Whole; it begins with the most simple Principles, and general Truths, and proceeds by degrees to that which is drawn from them or compounded of them: And therefore it is call'd the *Method* of *Composition*.

Analytic Method takes the whole Compound as it finds it, whether it be a *Species* or an *Individual*, and leads us into the Knowledge of it by resolving it into its first Principles or Parts, its generic Nature, and its special Properties; and therefore it is called the *Method of Resolution*.

As *synthetic Method* is generally used in teaching the Sciences after they are invented, so

* The Word *Analysis* has three or four Senses, which it may not be improper to take Notice of here.

1. It signifies the general and particular Heads of a Discourse, with their mutual Connections, both coordinate and subordinate, drawn out by way of Abstract into one or more Tables, which are frequently placed like an *Index* at the Beginning or End of a Book.

2. It signifies the resolving of a Discourse into its various Subjects and Arguments, as when any Writing of the ancient Prophets is resolv'd into the *prophetical*, *historical*, *doctrinal*, and *practical* Parts of it; it is said to be *analysed in general*. When a Sentence is distinguisht into the *Nouns*, the *Verbs*, *Pronouns*, *Adverbs*, and other *Particles* of Speech which compose it, then it is said to be *analys'd grammatically*. When the same Sentence is distinguish'd into *Subject* and *Predicate*, *Proposition*, *Argument*, *Act*, *Object*, *Cause*, *Effect*, *Adjunct*, *Opposite*, &c. then it is *analys'd logically* and *metaphysically*. This last is what is chiefly meant in the *theological* Schools, when they speak of *analysing a text of Scripture*.

3. *Analysis* signifies particularly the Science of *Algebra*, wherein a Question being propos'd, one or more Letters, as, *x*, *y*, *z*, or Vowels, as, *a*, *e*, *i*, &c. are made use of to signify the unknown Number, which being intermingled with several known Numbers in the Question, is at last by the Rules of Art separated or releas'd from that Entanglement, and its particular Value is found out by shewing its *Equation*, or Equality to some known Number.

4. It signifies *analytical Method*, as here explain'd in *Logick*.

† *Note.* It is confest that *Synthesis* often begins with the *Genus*, and proceeds to the *Species* and *Individuals*. But the *Genus* or *generic Nature* is then consider'd only as a *physical* or *essential Part* of the Species, tho' it be sometimes called an *universal* or *logical Whole*. Thus *synthetic Method* maintains its own Description still, for it begins with the *Parts*, and proceeds to the *Whole* which is compos'd of them.

analytic

analytic is moſt practis'd in finding out Things unknown. Though it muſt be confeſt that both Methods are ſometimes employ'd both to find out Truth and to communicate it.

If we know the Parts of any Subject eaſier and better than the Whole, we conſider the Parts diſtinctly, and by putting them together we come to the Knowledge of the Whole. So in *Grammar* we learn firſt to know *Letters*, we join them to make *Syllables*, out of *Syllables* we compoſe *Words*, and out of *Words* we make *Sentences* and *Diſcourſes*. So the *Phyſician* or *Apothecary* knows the Nature and Powers of his *Simples*, (*viz.*) his *Drugs*, his *Herbs*, his *Minerals*, &c. and putting them together, and conſidering their ſeveral Virtues, he finds what will be the Nature and Powers of the *Bolus*, or any *compound Medicine:* This is the *ſynthetic Method.*

But if we are better acquainted with the Whole than we are with particular Parts, then we divide or reſolve the Whole into its Parts, and thereby gain a diſtinct Knowledge of them. So in vulgar Life we learn in the Groſs what *Plants* or *Minerals* are; and then by Chymiſtry we gain the Knowledge of *Salt*, *Sulphur*, *Spirit*, *Water*, *Earth*, which are the Principles of them. So we are firſt acquainted with the whole Body of an *Animal*, and then by *Anatomy* or *Diſſection*, we come to learn all the inward and outward Parts of it. This is *analytic Method.*

According to this moſt general and obvious Idea of *ſynthetic* and *analytic* Method, they differ from each other as the Way which leads up from a *Valley* to a *Mountain* differs from it ſelf, conſider'd as it leads down from the *Mountain* to the *Valley*; or as St. *Matthew* and St. *Luke* prove *Chriſt to be the Son of Abraham*; *Luke* finds it out

by *Analysis*, rising from *Christ* to his *Ancestors*; *Matthew* teaches it in *synthetic* Method, beginning from *Abraham*, and shewing that *Christ* is found among his *Posterity*. Therefore it is a usual Thing in the Sciences, when we have by *Analysis* found out a Truth, we use *synthetic* Method to explain and deliver it, and prove it to be true.

In this easy View of Things, these two kinds of Method may be preserved conspicuously, and entirely distinct: But the Subjects of Knowledge being infinite, and the Ways whereby we arrive at this Knowledge being almost infinitely various, it is very difficult, and almost impossible, always to maintain the precise Distinction between these two Methods.

This will evidently appear in the following *Observations.*

Obs. I. *Analytick Method* being used chiefly to find out Things unknown, it is not limited or confined merely to begin with some *whole* Subject, and proceed to the Knowledge of its *Parts*, but it takes its Rise sometimes from any single Part or Property, or from any thing whatsoever that belongs to a Subject which happens to be first and most easily known, and thereby enquires into the more abstruse and unknown Parts, Properties, Causes, Effects, and Modes of it, whether absolute or relative; as for instance,

(1.) *Analysis* finds out Causes by their Effects. So in the speculative Part of *natural Philosophy*, when we observe *Light*, *Colours*, *Motions*, *Hardness*, *Softness*, and other Properties and Powers of Bodies, or any of the common or uncommon *Appearances* of Things either on Earth, or in Heaven, we search out the Causes of them. So by the

the various *Creatures* we find out the *Creator*, and learn his *Wiſdom*, *Power and Goodneſs*.

(2.) It finds out Effects by their Cauſes. So the practical and mechanical Part of *natural Philoſophy* conſiders ſuch Powers of Motion, as the *Wind*, the *Fire*, and the *Water*, &c. and then contrives what Uſes they may be applied to, and what will be their Effects in order to make *Mills* and *Engines* of various Kinds.

(3.) It finds out the general and ſpecial Nature of a Thing by conſidering the various Attributes of the Individuals, and obſerving what is common, and what is proper, what is accidental and what is eſſential. So by ſurveying the *Colour*, the *Shape*, *Motion*, *Reſt*, *Place*, *Solidity*, *Extenſion* of Bodies, we come to find that the *Nature* of *Body* in general is *ſolid Extenſion*; becauſe all other Qualities of Bodies are changeable, but this belongs to *all* Bodies, and it endures thro' all Changes; and becauſe this is proper to Body *alone*, and agrees not to any thing elſe; and it is the Foundation of all other Properties.

(4.) It finds out the remaining Properties or Parts of a Thing, by having ſome Parts or Properties given. So the *Area of a Triangle* is found by knowing the *Height* and the *Baſe*. So by having *two Sides*, *and an Angle of a Triangle* given, we find the remaining *Side* and *Angles*. So when we know *Cogitation* is the prime Attribute of a Spirit, we infer its *Immateriality*, and thence its *Immortality*.

(5.) *Analyſis* finds the Means neceſſary to attain a propoſed End by having the End firſt aſſigned. So in *moral*, *political*, *œconomical* Affairs, having propoſed the *Government of Self*, a *Family*, a *Society*, or a *Nation*, in order to their beſt Intereſt, we conſider and ſearch out what are the *pro-*

per Laws, *Rules* and *Means* to effect it. So in the Practices of *Artificers*, and the *Manufactures* of various Kinds, the End being proposed, as *making Cloth*, *Houses*, *Ships*, *&c.* we find out Ways of composing these things for the several Uses of human Life. By the putting any of these Means in Execution to attain the End, is *synthetic Method*.

Many other Particulars might be represented to shew the various Forms of *analytic Method*, whereby Truth is found out, and some of them come very near to *synthetic*, so as hardly to be distinguished.

Obs. II. Not only the Investigation of Truth, but the Communication of it also is often practised in such a Method, as neither agrees precisely to *synthetic* or *analytic*. Some Sciences, if you consider the *whole* of them in *general*, are treated in *synthetic* Order; so *Physics* or *natural Philosophy* begins usually with an Account of the general Nature and Properties of Matter or Bodies, and by Degrees descends to consider the particular Species of Bodies, with their Powers and Properties; yet it is very evident that when Philosophers come to particular Plants and Animals, then by *Chymistry* and *Anatomy* they analyse or resolve those Bodies into their several constituent Parts. On the other hand, *Logick* is begun in *analytic Method*; the *whole* is divided into its integral *Parts*, according to the four Operations of the Mind; yet here and there *synthetic* Method is used in the particular Branches of it, for it treats of *Ideas* in general first, and then descends to the several Species of them; it teaches us how Propositions are made up of *Ideas*, and *Syllogisms* of *Propositions*, which is the *Order* of *Composition*.

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The *antient ſcholaſtick* Writers have taken a great deal of Pains, and engaged in uſeleſs Diſputes about theſe two Methods, and after all have not been able to give ſuch an Account of them as to keep them entirely diſtinct from each other, neither in the Theory or in the Practice. Some of the *Moderns* have avoided this Confuſion in ſome Meaſure by confining themſelves to deſcribe almoſt nothing elſe but the *ſynthetic* and *analytic* Methods of *Geometricians* and *Algebraiſts*, whereby they have too much narrowed the Nature and Rules of Method, as tho' every thing were to be treated in *mathematical* Forms.

Upon the whole I conclude, that neither of theſe two Methods ſhould be too ſcrupulouſly and ſuperſtitiouſly purſued, either in the Invention or in the Communication of Knowledge. It is enough if the *Order of Nature* be but obſerved in making the Knowledge of Things following depend on the Knowledge of the Things which go before. Oftentimes a *mixed Method* will be found moſt effectual for theſe Purpoſes; and indeed a wiſe and judicious Proſpect of our main End and Deſign muſt regulate all Method whatſoever.

Here the *Rules of natural Method* ought to be propoſed, (whether it be *analytic*, or *ſynthetic*, or *mixt:*) but it is proper firſt to give ſome Account of *arbitrary Method*, leſt it be thruſt at too great a Diſtance from the firſt Mention of it.

Arbitrary Method leaves the Order of Nature, and accommodates itſelf to many Purpoſes; ſuch as, to treaſure up Things, and retain them in Memory; to harangue and perſuade Mankind to any Practice in the religious or the civil Life; or to delight, amuſe, or entertain the Mind.

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As for the *Assistance of the Memory*, in most Things a *natural Order* has an happy Influence; for Reason itself deducing one Thing from another, greatly assists the Memory by the natural Connection and mutual Dependence of Things. But there are various other Methods which Mankind have made use of for this Purpose, and indeed there are some Subjects that can hardly be reduced to *Analysis* or *Synthesis*.

In reading or writing *History*, some follow the Order of the *Governors* of a Nation, and dispose every Transaction under their particular *Reigns*: So the sacred Books of *Kings* and *Chronicles* are written. Some write in *Annals* and *Journals*, and make a new Chapter of every Year. Some put all those Transactions together which relate to *one Subject*; that is, all the Affairs of *one War*, *one League*, *one Confederacy*; *one Council*, &c. tho' it lasted many Years, and under many Rulers.

So in writing the *Lives of Men*, which is called *Biography*, some Authors follow the Track of their *Years*, and place every thing in the precise Order of Time when it occurr'd: Others throw the *Temper* and *Character* of the Persons, their *private Life*, their *public Stations*, their *personal Occurrences*, their *domestic Conduct*, their *Speeches*, their *Books* or *Writings*, their *Sickness* and *Death*, into so many distinct Chapters.

In *Chronology* some Writers make their *Epochas* to begin all with one Letter: So in the Book called *Ductor Historicus*, the Periods all begin with *C*; as, *Creation*, *Cataclysm*, or Deluge, *Chaldean Empire*, *Cyrus*, *Christ*, *Constantine*, &c. Some divide their Accounts of Time according to the four great Monarchies; *Assyrian*, *Persian*, *Grecian* and *Roman*. Others think it serves the Memory best to divide all their Subjects into the re-

markable Number of Sevens; ſo *Prideaux* has written an *Introduction to Hiſtory*. And there is a Book of Divinity called *Faſciculus Controverſiarum*, by an Author of the ſame Name, written in the ſame Method, wherein every Controverſy has *ſeven* Queſtions belonging to it; tho' the Order of Nature ſeems to be too much neglected by a Confinement to this *ſeptenary Number*.

Thoſe *Writers and Speakers*, whoſe chief Buſineſs is to amuſe or delight, to allure, terrify, or perſuade Mankind, do not confine themſelves to any *natural Order*, but in a *cryptical* or *hidden Method* adapt every thing to their deſigned Ends. Sometimes they *omit* thoſe Things which might injure their Deſign, or grow tedious to their Hearers, tho' they ſeem to have a neceſſary Relation to the Point in hand: Sometimes they *add* thoſe Things which have no great Reference to the Subject, but are ſuited to allure or refreſh the Mind and the Ear. They *dilate* ſometimes, and flouriſh long upon little Incidents, and they ſkip over, and but lightly touch the drier Part of their Theme. They *place the firſt* Things *laſt*, and the *laſt* Things *firſt*, with wondrous Art, and yet ſo manage it as to conceal their Artifice, and lead the Senſes and Paſſions of their Hearers into a pleaſing and powerful Captivity.

It is chiefly *Poeſy* and *Oratory* that require the Practice of this kind of *arbitrary Method:* They omit Things eſſential which are not beautiful, they inſert little needleſs Circumſtances, and beautiful Digreſſions, they invert Times and Actions, in order to place every Thing in the moſt affecting Light, and for this End in their Practice they neglect all *logical Forms*; yet a good Acquaintance with the *Forms of Logick and natural Method* is of admirable Uſe to thoſe who would attain theſe

Arts

Arts in Perfection. Hereby they will be able to range their own Thoughts in such a Method and Scheme, as to take a more large and comprehensive Survey of their Subject and Design in all the Parts of it; and by this Means they will better judge what to chuse and what to refuse; and how to dress and manage the whole Scene before them, so as to attain their own Ends with greater Glory and Success.

CHAP. II.

The Rules of Method, general and special.

THE General Requisites of true Method in the Pursuit or Communication of Knowledge, may be all comprized under the following Heads. It must be (1.) *Safe*. (2.) *Plain* and *Easy*. (3.) *Distinct*. (4.) *Full* or without *Defect*. (5.) *Short* or without *Superfluity*. (6.) *Proper* to the *Subject* and the *Design*. (7.) *Connected*.

I. RULE. Among all the Qualifications of a good Method, there is none more necessary and important than that it should be *safe and secure from Error*; and to this End these four *particular* or *special Directions* should be observed.

1. *Use great Care and Circumspection in laying the Foundations of your Discourse, or your Scheme of Thoughts upon any Subject.* These Propositions which are to stand as first Principles, and on which the whole Argument depends, must be viewed on all Sides with utmost Accuracy, lest an

Error being admitted there, ſhould diffuſe itſelf thro' the whole Subject. See therefore that your *general Definitions* or *Deſcriptions* are as accurate as the Nature of the Thing will bear: See that your *general Diviſions* and *Diſtributions* be juſt and exact, according to the Rules given in the firſt Part of Logick: See that your *Axioms* be ſufficiently evident, ſo as to demand the Aſſent of thoſe that examine them with due Attention. See that your *firſt and more immediate Conſequences from theſe Principles* be well drawn; and take the ſame Care of all other *Propoſitions* that have a powerful and ſpreading Influence thro' the ſeveral Parts of your Diſcourſe.

For want of this Care, ſometimes, a large Treatiſe has been written by a long Deduction of Conſequences from one or two doubtful Principles, which Principles have been effectually refuted in a few Lines, and thus the whole Treatiſe has been deſtroyed at once: So the largeſt and faireſt Building ſinks and tumbles to the Ground, if the Foundations and Corner-Stones of it are feeble and inſufficient.

2. It is a very adviſable Thing that your *primary and fundamental Propoſitions be not only evident and true, but they ſhould be made a little familiar to the Mind by dwelling upon them before you proceed farther.* By this Means you will gain ſo full an Acquaintance with them, that you may draw Conſequences from them with much more Freedom, with greater Variety, brighter Evidence, and with a firmer Certainty, than if you have but a ſlight and ſudden View of them.

3. As you proceed in the Connection of your Arguments, *ſee that your Ground be made firm in every Step.* See that every Link of your Chain of Reaſoning be ſtrong and good: For if but one

one Link be feeble and doubtful, the whole Chain of Arguments feels the Weakness of it, and lie exposed to every Objector, and the original Question remains undetermined.

4. *Draw up all your Propositions and Arguments with so much Caution, and express your Ideas with such a just Limitation as may preclude or anticipate any Objections.* Yet remember this is only to be done as far as it is possible, without too much entangling the Question, or introducing complicated Ideas, and obscuring the Sense. But if such a cautious and limited Dress of the Question should render the Ideas too much complicated, or the Sense obscure, then it is better to keep the Argument more simple, clear and easy to be understood, and afterwards mention the *Objections* distinctly in their full Strength, and give a distinct *Answer* to them.

IId Rule. Let your *Method be plain and easy*, so that your Hearers or Readers, as well as your self may run thro' it without Embarrassment, and may take a clear and comprehensive View of the whole Scheme. To this End the following *particular Directions* will be useful.

1. *Begin always with those Things which are best known, and most obvious, whereby the Mind may have no Difficulty or Fatigue, and proceed by regular and easy Steps to Things that are more difficult.* And as far as possible, let not the Understanding, or the Proof of any of your Positions, depend on the Positions that follow, but always on those which go before. It is a Matter of Wonder that in so knowing an Age as this, there should be so many Persons offering Violence daily to this Rule, by *teaching the Latin Language by a Grammar written in Latin*, which Method seems to require a

perfect Knowledge of an unknown Tongue, in order to learn the first Rudiments of it.

2. *Do not affect excessive Haste in learning or teaching any Science, nor hurry at once in the midst of it*, lest you be too soon involved in several new and strange Ideas and Propositions, which cannot be well understood without a longer and closer Attention to those which go before. Such sort of Speed is but a waste of Time, and will constrain you to take many Steps backward again, if you would arrive at a regular and compleat Knowledge of the Subject.

3. *Be not fond of crowding too many Thoughts and Reasonings into one Sentence or Paragraph, beyond the Apprehension or Capacity of your Readers or Hearers.* There are some Persons of a good Genius, and a capacious Mind, who write and speak very obscurely upon this Account; they affect a long Train of Dependencies, before they come to a Period; they imagine that they can never fill their Page with too much Sense; but they little think how they bury their own best Ideas in the Croud, and render them in a manner invisible and useless to the greatest Part of Mankind. Such Men may be great Scholars, yet they are but poor Teachers.

4. For the same Reason *avoid too many Subdivisions.* Contrive your Scheme of Thoughts in such a manner as may finish your whole Argument with as few inferior Branchings as Reason will admit; and let them be such as are obvious and open to the Understanding, that they may come within one single View of the Mind. This will not only assist the Understanding to receive, but it will aid the Memory also to retain Truth: whereas a Discourse cut out into a vast Multitude of gradual Subordinations, has many Inconveni-

ences

ences in it; it gives Pain to the Mind and Memory, in surveying and retaining the Scheme of Discourse, and exposes the unskilful Hearers to mingle the superior and inferior Particulars together, it leads them into a thick Wood instead of open Day-light, and places them in a Labyrinth instead of a plain Path.

5. *Give all Diligence in your younger Years to obtain a clear and easy Way of expressing your Conceptions*, that your Words, as fast as you utter them, may stamp your own Ideas exactly on the Mind of the Hearer. This is a most happy Talent for the Conveyance of Truth, and an excellent Security against Mistakes and needless Controversies.

III^d^ Rule. Let your *Method be distinct*, and without the perplexing Mixture of Things that ought to be kept separate, and this will be easily practised by four *Directions*.

1. *Don't bring unnecessary* heterogeneous * *Matter in your Discourse on any Subject*; that is, don't mingle an Argument on one Subject with Matters that relate entirely to another, but just so far as is necessary to give a clearer Knowledge of the Subject in hand. Examples in *Logick* may be borrow'd from any of the Sciences to illustrate the Rules: But long Interpositions of *natural Philosophy*, of the *Imagination* and *Passions*, of *Agency of Spirits united to Bodies*, &c. break the Thread of Discourse, and perplex the Subject.

2. *Let every complicated Theme or Idea be divided into its distinct single Parts, as far as the Nature of the Subject and your present Design requires it.* Tho'

* Things of one Kind are call'd *homogeneous*, Things of different Kinds are *heterogeneous*.

you must not abound in needless Subdivisions, yet something of this Work is very necessary; and it is a good Judgment alone can dictate how far to proceed in it, and when to stop.

Compound Ideas must be reduced to a simple Form in order to understand them well. You may easily master that Subject in all the Parts of it by a regular Succession, which would confound the Understanding to survey them at once. So we come to the Knowledge of a very *perplex'd Diagram in Geometry*, or a *complicated Machine in Mechanics*, by having it parcell'd out to us into its several Parts and Principles, according to this, and the foregoing Rule of Method.

3. *Call every Idea, Proposition and Argument to its proper Class, and keep each Part of the Subject in its own Place.* Put those things all together that belong to one Part or Property, one Consideration or View of your Subject. This will prevent needless Repetitions, and keep you from intermixing Things which are different. We must maintain this Distinction of Things and Places if we would be safe from Error. It is Confusion that leads us into endless Mistakes, which naturally arise from a Variety of Ideas ill-joined, ill-sorted, or ill-disposed. It is one great use of Method, that a Multitude of Thoughts and Propositions may be so distinctly ranged in their proper Situations, that the Mind may not be overwhelmed with a confused Attention to them all at once, nor be distracted with their Variety, nor be tempted to unite Things which ought to be separated, nor to disjoin Things which should be united.

4. *In the Partition of your Discourse into distinct Heads, take heed that your Particulars do not interfere with the General, nor with each other.* Think

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it is not enough that you make use of distinct Expressions in each Particular, but take care that the Ideas be distinct also. It is mere Foolery to multiply distinct Particulars in treating of *Things*, where the Difference of your Particulars lies only in *Names* and *Words*.

IVth Rule. The Method of treating a Subject should be *plenary* or *full*, *so that nothing may be wanting*; nothing which is necessary or proper should be omitted.

When you are call'd to *explain* a Subject, don't pass by, nor skip over any thing in it which is very difficult or obscure.

When you *enumerate the Parts or the Properties* of any Subject, do it in a complete and comprehensive manner.

When you are *asserting* or *proving* any Truth, see that every doubtful or disputable Part of the Argument be well supported and confirm'd.

If you are to *illustrate or argue a Point of Difficulty*, be not too scanty of Words, but rather become a little copious and diffusive in your Language: Set the Truth before the Reader in several Lights, turn the various Sides of it to view, in order to give a full Idea, and firm Evidence of the Proposition.

When you are *drawing up a Narrative* of any Matter of Fact, see that no important Circumstance be omitted.

When you propose the *Solution of any Difficulty*, consider all the various Cases wherein it can happen, and shew how they may be solved.

In short, let your *Enumerations*, your *Divisions* and *Distributions* of Things be so accurate, that no needful Part or Idea may be left out.

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This *Fulneſs* of *Method* does not require that every thing ſhould be ſaid which can be ſaid upon any Subject; for this would make each ſingle Science endleſs: But you ſhould ſay every thing which is neceſſary to the Deſign in View, and which has a proper and direct Tendency to this End; always proportioning the Amplitude of your Matter, and the Fulneſs of your Diſcourſe to your great Deſign, to the Length of your Time, to the Convenience, Delight and Profit of your Hearers.

V^th^ RULE. As your Method muſt be *full without Deficiency*, ſo it muſt be *ſhort, or without Superfluity*. The *Fulneſs* of a Diſcourſe enlarges our Knowledge, and the well-concerted *Brevity* ſaves our Time. In order to obſerve this Rule, it will be enough to point out the chief of thoſe *Superfluities* or *Redundancies*, which ſome Perſons are guilty of in their Diſcourſes, with a due Caution againſt them.

1. *Avoid all needleſs Repetitions of the ſame Thing in different Parts of your Diſcourſe.* It muſt be confeſs'd there are ſeveral Caſes wherein a Review of the ſame foregoing Propoſition is needful to explain or prove ſeveral of the following Poſitions; but let your Method be ſo contrived, as far as poſſible, that it may occaſion the feweſt Rehearſals of the ſame Thing; for it is not grateful to the Hearers without evident Neceſſity.

2. *Have a Care of a tedious Prolixity*, or *drawing out any Part of your Diſcourſe to an unneceſſary and tireſome Length.* It is much more honourable for an Inſtructor, an Orator, a Pleader, or a Preacher, that his Hearers ſhould ſay, *I was afraid he would have done*, than that they ſhould be tempted to ſhew Signs of Uneaſineſs, and long for the *Concluſion*.

Beſides,

Besides, there is another Inconvenience in it; when you affect to amplify on the former Branches of a Discourse, you will often lay a Necessity upon yourself of contracting the latter and most useful Parts of it, and perhaps prevent yourself in the most important Part of your Design. Many a Preacher has been guilty of this fault in former Days, nor is the present Age without some Instances of this Weakness.

3. *Do not multiply Explications where there is no Difficulty, or Darkness, or Danger of Mistake.* Be not fond of tracing every Word of your Theme thro' all the *grammatical*, the *logical* and *metaphysical* Characters and Relations of it, nor shew your critical Learning in spreading abroad the various Senses of a Word, and the various Origin of those Senses, the *Etymology* of Terms, the *synonymous* and the *paronymous* or kindred Names, &c. where the chief Point of Discourse does not at all require it. You would laugh at a *Pedant*, who professing to explain the *Athanasian Creed*, should acquaint you, that *Athanasius* is deriv'd from a *Greek* Word, which signifies *Immortality*, and that the same Word Ἀθανασία signifies also the Herb *Tansie*.

There are some Persons so fond of their learned Distinctions, that they will shew their Subtilty by *distinguishing where there is no Difference:* And the same silly Affectation will introduce *Distinctions* upon every Occurrence, and bring three or four *Negatives* upon every Subject of Discourse; first to declare what it is not, and then what it is: Whereas such *Negatives* ought never to be mention'd where there is no apparent Danger of Mistake. How ridiculous would that Writer be, who, if he were speaking of the *Nicene Creed*, should declare negatively, 1. That he did not

mean

mean *the Doctrine which the Inhabitants of* Nice *believed*, nor (2.) *A Creed written by them*, but (3.) Positively *a Creed composed by several* Christian *Bishops met together in the City of* Nice? The *Positive* is sufficient here, and the two *Negatives* are impertinent.

4. *Be not fond of proving those Things which need no Proof*, such as self-evident Propositions and Truths universally confess'd, or such as are intirely agreed to and granted by our Opponents. It is this vain Affectation of *proving every thing* that has led *Geometricians* to form useless and intricate Demonstrations to support some Theorems, which are sufficiently evident to the Eye by Inspection, or to the Mind by the first mention of them; and it is the same Humour that reigns sometimes in the Pulpit, and spends half the Sermon in proving some general Truth which is never disputed or doubted, and thereby robs the Auditory of more useful Entertainment.

5. As there are some things so evidently true, that they want no Proof, so there *are others so evidently false that they want no Refutation.* It is mere trifling, and a waste of our precious Moments, to invent and raise such Objections as no Man would ever make in earnest, and that merely for the sake of answering and solving them: This breaks in notoriously upon the due *Brevity* of Method.

6. *Avoid in general all learned Forms, all Trappings of Art, and Ceremonies of the Schools*, where there is no need of them. It is reported concerning the late *Czar of Muscovy*, that when he first acquainted himself with *mathematical* Learning, he practis'd all the Rules of *Circumvallation* and *Contravallation*, at the Siege of a Town in *Livonia*;

Livonia; and by the Length of those Formalities he lost the Opportunity of taking the Town.

7. *Don't suffer every occasional and incidental Thought to carry you away into a long Parenthesis, and thus to stretch out your Discourse, and divert you from the Point in Hand.* In the Pursuit of your Subject, if any useful Thought occur which belongs to some other Theme, note it down for the sake of your Memory on some other Paper, and lay it by in reserve for its proper Place and Season: But let it not incorporate itself with your present Theme, nor draw off your Mind from your main Business, tho' it should be never so inviting. A Man who walks directly but slowly towards his Journey's End, will arrive thither much sooner than his Neighbour, who runs into every crooked Turning which he meets, and wanders aside to gaze at every thing that strikes his Eyes by the Way, or to gather every gaudy Flower that grows by the side of the Road.

To sum up all; *There is an happy Medium to be observ'd in our Method, so that the Brevity may not render the Sense obscure, nor the Argument feeble, nor our Knowledge merely superficial: And on the other Hand, that the Fulness and Copiousness of our Method may not waste the Time, tire the Learner, or fill the Mind with Trifles and Impertinencies.*

The *copious* and the *contracted* Way of writing have each their peculiar Advantages. There is a proper Use to be made of *large Paraphrases*, and *full*, *particular*, and *diffusive Explications* and *Arguments*; these are fittest for those who design to be acquainted thoroughly with every Part of the Subject. There is also a Use of *shorter Hints*, *Abstracts* and *Compendiums* to instruct those who seek only a slight and general Knowledge, as well as to refresh the Memory of those who have learnt the

the Science already, and gone thro' a larger Scheme. But it is a groſs Abuſe of theſe various Methods of Inſtruction, when a Perſon has read a *mere compend* or *Epitome* of any Science, and he vainly imagines that he underſtands the whole Science. So one Boy may become a *Philoſopher* by reading over the mere dry Definitions and Diviſions of *Scheibler's Compendium of Peripateticiſm:* So another may boaſt that he underſtands *Anatomy*, becauſe he has ſeen a *Skeleton*; and a third profeſs himſelf a learned *Divine*, when he can repeat the *Apoſtles Creed.*

VIth Rule. Take care that your *Method be proper to the Subject in Hand, proper to your preſent Deſign*, as well as *proper to the Age* and *Place* wherein you dwell.

1. Let your *Method be proper to the Subject.* All Sciences muſt not be learnt or taught in one Method. *Morality* and *Theology*, *Metaphyſics* and *Logick*, will not be eaſily and happily reduc'd to a ſtrict *mathematical* Method: Thoſe who have tried have found much Inconvenience therein.

Some things have more need to be *explain'd* than to be *proved*; as *Axioms* or *ſelf-evident Propoſitions*; and indeed all the *firſt great Principles*, the chief and moſt important Doctrines both of *natural* and *reveal'd Religion*; for when the Senſe of them is clearly explain'd, they appear ſo evident in the Light of *Nature* or *Scripture*, that they want no other Proof. There are other Things that ſtand in need of *Proof*, as well as *Explication*, as many *mathematical Theorems*, and ſeveral deep *Controverſies* in *Morality and Divinity.* There are yet other ſorts of Subjects which want rather to be warmly impreſt upon the Mind by *fervent Exhortations*, and ſtand in more need of this than

they

they do either of *Proof* or *Explication*; such are the most general, plain and obvious Duties of *Piety towards God, and love toward Men*, with a *Government of all our Inclinations and Passions*. Now these several Subjects ought to be treated in a different Manner and Method.

Again, There are some Subjects in the same Treatise which are more *useful* and *necessary* than others, and some Parts of a Subject which are *eminently and chiefly design'd* by a Writer or Speaker: *True Method* will teach us to dwell longer upon these Themes, and to lay out more Thought and Language upon them; whereas the same *Art of Method* will teach us to curt short those things which are used only *to introduce* our main Subject, and to stand as a *Scaffolding* merely to aid the Structure of our Discourse. It will teach us also to content ourselves with brief Hints of those Matters which are merely *occasional* and *incidental*.

2. *Your Method must be adjusted by your Design*; for if you treat of the same Subject with two different Views and Designs, you will *find* it necessary to use different Methods. Suppose the *Doctrine of the sacred Trinity* were your Theme, and you were to read a Lecture to young Students on that Subject, or if you design'd a Treatise for the Conviction of learned Men, you would pursue a very different Method from that which would be proper to regulate a practical Discourse, or a Sermon to instruct vulgar Christians merely in the pious Improvement of this Doctrine, and awaken them to their Duties which are deriv'd thence.

In short, we must not first lay down certain and precise Rules of Method, and resolve to confine the Matter we discourse of to that particular Form and Order of Topicks; but we must well

conſider and ſtudy the *Subject* of our Diſcourſe throughly, and take a juſt Survey of our preſent *Deſign*, and theſe will give ſufficient Hints of the *particular Form and Order* in which we ſhould handle it, provided that we are moderately skill'd in the *general Laws* of *Method* and *Order*.

Yet let it be noted here, that neither the *Subject* or Matter of a Diſcourſe, nor the particular *Deſign* of it, can ſo preciſely determine the Method, as to leave no room for Liberty and Variety. The very ſame Theme may be handled, and that alſo with the ſame Deſign, in ſeveral different Methods, among which it is hard to ſay which is the beſt. In writing a *Syſtem of Divinity*, ſome begin with the *Scriptures*, and thence deduce all other Doctrines and Duties. Some begin with the *Being of God* and *his Attributes*, ſo far as he is known by the Light of *Nature*, and then proceed to the Doctrines of *Revelation*. Some diſtinguiſh the whole Subject into the *Credenda* and *Agenda*, that is, *Things to be believed, and Things to be done*. Some think it beſt to explain the whole Chriſtian Religion by an *hiſtorical Detail of all the Diſcoveries which God has made of himſelf to this lower World*, beginning at the *Creation* in the firſt Chapter of *Geneſis*, and ſo proceeding onward according to the Narrative of the Old and New Teſtament. And there are others that endeavour to include the whole of Religion under theſe four Heads, (*viz.*) *The Apoſtles Creed, the Lord's Prayer, the Ten Commandments, and the two Sacraments*; tho' I cannot but think this is the leaſt accurate of any. The ſame Variety may be allowed in treating other Subjects; this very *Treatiſe of Logick* is an Inſtance of it, whoſe Method differs very conſiderably from any others which I have ſeen, as they differ alſo greatly from one another

other, tho' several of them are confess'd to be well written.

3. Tho' a just View of our *Subject* and our *Design* may dictate proper Rules of natural Method, yet *there must be some little Deference at least paid to the Custom of the Age wherein we dwell*, and *to the Humour and Genius of our Readers or Hearers*, which if we utterly reject and disdain, our Performances will fail of desired Success, even tho' we may have followed the just Rules of Method. I will mention but this one Instance: In the former Century it was frequent with learned Men to divide their Theme or Subject into a great Multitude of *coordinate Members or Parts*, they abounded also in the *Forms of Logick* and *Distinction*, and indulged numerous *Ranks of Subordination*. Now tho' we ought not to abandon the *Rules of just Method and Division*, in order to comport with the modish Writers in our Age who have renounced them, yet it is prudent to pay so much Respect to the Custom of the Age, as to use these *Forms of Division* with due Moderation, and not affect to multiply them in such a manner as to give an early and needless Disgust to the generality of our present Readers. The same may be said concerning various other Methods of Conduct in the Affairs of Learning as well as the Affairs of Life, wherein we must indulge a little to Custom: And yet we must by no means suffer ourselves so far to be imposed upon and governed by it, as to neglect those Rules of Method which are necessary for the *safe*, *easy* and *compleat* Enquiry into Truth, or the *ready and effectual Communication* of it to others.

VIIth Rule. The last Requisite of Method is, that *the Parts of a Discourse should be well connect-*

ed; and these three short *Directions* will suffice for this Purpose.

1. *Keep your main End and Design ever in view, and let all the Parts of your Discourse have a Tendency toward it, and, as far as possible, make that Tendency visible all the Way:* Otherwise the Readers or Hearers will have reason to wonder for what End this or that Particular was introduced.

2. *Let the mutual Relation and Dependance of the several Branches of your Discourse be so just and evident, that every Part may naturally lead onward to the next, without any huge Chasms or Breaks which interrupt and deform the Scheme.* The Connection of Truths should arise and appear in their successive Ranks and Order, as the several Parts of a fine Prospect ascend just behind each other, in their natural and regular Elevations and Distances, and invite the Eye to climb onward with constant Pleasure till it reach the Sky. Whatsoever horrid Beauty a Precipice or a Cataract may add to the Prospect of a Country, yet such sort of hideous and abrupt Appearances in a Scene of Reasoning are real Blemishes and not Beauties. When the Reader is passing over such a Treatise, he often finds a wide Vacancy, and makes an uneasy Stop, and knows not how to transport his Thoughts over to the next Particular, for want of some Clue or connecting Idea to lay hold of.

3. *Acquaint yourself with all the proper and decent Forms of Transition from one Part of a Discourse to another, and practise them as Occasion offers.* Where the Ideas, Propositions and Arguments are happily disposed, and well connected, the Truth indeed is secure; but it renders the Discourse much more agreeable, when proper and graceful Expression joins the Parts of it together in so entertaining

ing

ing a manner, that the Reader knows not how to leave off till he hath arrived at the End.

These are the *general* and most important *Rules of true Method*; and tho' they belong chiefly to the *Communication* of Knowledge, yet an early and thorough Acquaintance with them will be of considerable Use toward the *Pursuit* and *Attainment* of it.

Those Persons who have never any Occasion to communicate Knowledge by Writing or by publick Discourses, may also with great Advantage peruse these *Rules of Method*, that they may learn to judge with Justice and Accuracy concerning the Performance of others. And besides, a good Acquaintance with *Method* will greatly assist every one in ranging, disposing and managing all human Affairs.

The *particular Means* or *Methods* for a farther Improvement of the Understanding are very various, such as, *Meditation*, *Reading*, *Conversing*, *Disputing by Speech or by Writing*, *Question and Answer*, &c. And in each of these Practices some special Forms may be observed, and special Rules may be given to facilitate and secure our Enquiries after Truth: But this would require a little Volume by itself, and a Treatise of *Logick* has always been esteem'd sufficiently compleat without it.

FINIS.

THE TABLE OF THE CONTENTS.

THE *Introduction or general Scheme.* Page 1.

The *First Part (viz.)* Of Perceptions and Ideas.

CHAP. I. *Of the Nature of Ideas,* 8

CHAP. II. *Of the Objects of Perception.* Sect. 1. *Of Being in general,* p. 10. Sect. 2. *Of Substances and their various Kinds,* p. 11. Sect. 3. *Of Modes and their various Kinds; and first of essential and accidental Modes,* p. 16. Sect. 4. *The further Divisions of Mode,* p. 20. Sect. 5. *Of the ten Categories. Of Substance modify'd.* p. 25. Sect. 6. *Of Not-Being,* p. 26.

CHAP. III. *Of the several sorts of Perceptions or Ideas.* Sect. 1. *Of sensible, spiritual, and abstracted Ideas,* p. 28. Sect. 2. *Of simple and complex, compound and collective Ideas,* p. 33.

CONTENTS.

Sect. 3. *Of universal and particular Ideas, real and imaginary.* p. 34. Sect. 4. *The Division of Ideas, with Regard to their Qualities,* p. 39.

CHAP. IV. *Of Words and their several Divisions, together with the Advantage and Danger of them.*
Sect. 1. *Of Words in general and their Use,* p. 45.
Sect. 2. *Of negative and positive Terms,* p. 51.
Sect. 3. *Of simple and complex Terms,* p. 54.
Sect. 4. *Of Words common and proper,* p. 56.
Sect. 5. *Of concrete and abstract Terms,* p. 58.
Sect. 6. *Of univocal and equivocal Words,* ibid.
Sect. 7. *Various Kinds of equivocal Words,* p. 61.
Sect. 8. *The Origin or Causes of equivocal Words,* p. 67.

CHAP. V. *General Directions relating to our Ideas,* (viz.) 1. *Of acquiring a Treasure of Ideas.* 2. *Of retaining Ideas in Memory.* 3. *Of selecting useful Ideas.* 4. *Of the Government of our Thoughts,* p. 71.

CHAP. VI. *Special Rules to direct our Conception of Things,* p. 79. Sect. 1. *Of gaining clear and distinct Ideas,* p. 80. Sect. 2. *Of the Definition of Words or Names,* p. 82. Sect. 3. *Directions concerning the Definition of Names,* p. 84. Sect. 4. *Of the Definition of Things,* p. 100. Sect. 5. *Rules of Definition of the Thing,* p. 105. Sect. 6. *Observations concerning the Definition of Things,* p. 108. Sect. 7. *Of a compleat Conception of Things,* p. 117. Sect. 8. *Of Division, and the Rules of it,* p. 118. Sect. 9. *Of a comprehensive Conception of Things, and of Abstraction,* p. 124. Sect. 10. *Of the extensive Conception of Things, and of Distribution,* p. 128. Sect. 11. *Of an orderly Conception of Things,* p. 133.

p. 133. Sect. 12. *These five Rules of Conception exemplify'd*, p. 135. Sect. 13. *An Illustration of these five Rules by Similitudes*, p. 137.

The *Second Part*, (viz.) of Judgment and Proposition.

CHAP. I. *Of the Nature of a Proposition and its several Parts*, p. 144.

CHAP. II. *Of the various Kinds of Propositions.* Sect. 1. *Of universal, particular, indefinite, and singular Propositions*, p. 147. Sect. 2. *Of affirmative and negative Propositions*, p. 156. Sect. 3. *Of the Opposition and Conversion of Propositions*, p. 158. Sect. 4. *Of pure and modal Propositions*, p. 161. Sect. 5. *Of single Propositions, whether simple or complex*, p. 163. Sect. 6. *Of compound Propositions*, p. 165. Sect. 7. *Of true and false Propositions*, p. 171. Sect. 8. *Of certain and doubtful Propositions, of Knowledge and Opinion*, p. 174. Sect. 9. *Of Sense, Consciousness, Intelligence, Reason, Faith and Inspiration*, p. 177.

CHAP. III. *The Springs of false Judgment, or the Doctrine of Prejudices*, p. 186. Sect. 1. *Prejudices arising from Things*, p. 188. Sect. 2. *Prejudices arising from Words*, p. 195. Sect. 3. *Prejudices arising from ourselves*, p. 198. Sect. 4. *Prejudices arising from other Persons*, p. 214.

CHAP. IV. *General Directions to assist us in judging aright,* p. 231.

CHAP. V. *Special Rules to direct us in judging of particular Objects.* Sect. 1. *Principles and Rules of Judgment concerning the Objects of Sense,* p. 249. Sect. 2. *Principles and Rules of Judgment in Matters of Reason and Speculation,* p. 253. Sect. 3. *Principles and Rules of Judgment in Matters of Morality and Religion,* p. 259. Sect. 4. *Principles and Rules of Judgment in Matters of human Prudence,* p. 263. Sect. 5. *Principles and Rules of Judgment in Matters of human Testimony,* p. 266. Sect. 6. *Principles and Rules of Judgment in Matters of divine Testimony,* p. 271. Sect. 7. *Principles and Rules of Judging concerning Things past, present, and to come, by the mere Use of Reason,* p. 275.

The *Third Part,* (*viz.*) Of Reasoning and Syllogism.

CHAP. I. *Of the Nature of a Syllogism, and of the Parts of which it is composed,* p. 280.

CHAP. II. *Of the various Kinds of Syllogisms, with particular Rules relating to them.* Sect. 1. *Of universal and particular Syllogisms, both negative and affirmative,* p. 283. Sect. 2. *Of plain, simple Syllogisms, and their Rules,* p. 285. Sect. 3. *Of the Moods and Figures of simple Syllogisms,* p. 289. Sect. 4. *Of complex Syllogisms,* p. 292. Sect. 5. *Of conjunctive Syllogisms,* p. 296. Sect. 6. *Of compound Syllogisms,* p. 301. Sect. 7. *Of the middle*

middle Terms, of common Places or Topics, and Invention of Arguments, p. 305. Sect. 8. *Of several Kinds of Arguments and Demonstrations*, p. 308.

CHAP. III. *The Doctrine of Sophisms.* Sect. 1. *Of several Kinds of Sophisms, and their Solution*, p. 313. Sect. 2. *Two general Tests of true Syllogisms, and Methods of solving all Sophisms*, p. 323.

CHAP. IV. *Some general Rules to direct our Reasoning.* p. 326.

The *Fourth Part*, (*viz.*) Of Method.

CHAP. I. *The Nature and Kinds of Method*, p. 340.

CHAP. II. *General and special Rules of Method*, p. 349.

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